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ROTATION WORK SCHEDULES IN THE NORTHWEST TERRITORIES:

A STUDY OF VARIAT. AND CONSEQUENCES

by

CHARLES W. HOBART, PH.D.

UNIVERSITY OF ALBERTA

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A REPORT TO THE PLANNING AND DEVELOPMENT DIVISION

DEPARTMENT OF ECONOMIC DEVELOPMENT AND TOURISM

GOVERNMENT OF THE NORTHWEST TERRITORIES

EDMONTON, ALBERTA

DECEMBER, 1976



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To Miss Susan Schultz, my thanks for her very fast, accurate typing and for her patience in incorporating late editorial changes.

Yet for all this help, the analyses and interpretations are of course solely mine, and I alone am responsible for such weaknesses as the reader may find in this study.

Needless to say, the conclusions and recommendations are solely my responsibility and do not necessarily reflect the viewpoint of the Planning and Development Division, Department of Economic Development and Tourism, Government of the Northwest Territories.



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## CHAPTER I

### INTRODUCTION

This study was carried out under a contract issued by the Research and Evaluation Division of the Department of Economic Development of the Government of the Northwest Territories.

#### Purpose and Scope

The terms of the contract called for a review of the existing literature and for original research in the Northwest Territories investigating the effects of differing work rotation schedules in isolated locations on workers, their families and their communities. These data were to provide the basis for making recommendations with respect to ways in which work rotation employment might be regulated to best safeguard the welfare of the native workers and families affected by such employment in the Northwest Territories.

The survey of existing literature was to include information on the effects of harsh climates and isolation on the attitudes, morale, and motivation of workers, and of work rotation on work performances, home life and community life. In so far as possible, the original research was to obtain the data on the attitudes of workers' wives, sons, and daughters toward workers' absences from home, and on the aspirations and expectations of

sons and daughters of rotation workers, and information on the effects of rotation employment on health and diet, child rearing practices, and family solidarity and integration of affected families.

### Bias and Interpretation

Little need be said about the published materials that have been utilized in this report. The consequence of publication of such material is that it is usually read, discussed and criticized by those familiar with the area. Thus the interested reader may check on the scholarly reputé of most of the researchers and the publications which I have consulted.

However the same is not true of the original research which was carried out for this study. All feasible efforts were made to maximize the reliability, validity, and completeness of the data collected. With one exception, only native interviewers were used in interviewing native people. Most had had previous interviewing experience and all were trained in use of the interview schedules which were devised for use in this study. In the case of the data for Arctic Bay, Pond Inlet and the first Coppermine study the data are very complete. In the case of the second Coppermine study and of Igloolik, the data are less complete, but the quality of all of these data appears to be good.

Nevertheless this researcher has deliberately adopted a cautious, conservative attitude in the interpretation of these



data, particularly where the issue of the length of the work period is concerned. The reason for this is two-fold. The first is that almost all of the native people interviewed were in a situation where the only employment available to them (or their husbands and fathers) was rotation employment. At the same time the increasingly well-stocked display cases of the Hudson's Bay stores, and the impact of the media and of more numerous contacts with whites all tend to strengthen the appetites of native northerners for consumer goods, only attainable through increasing the size of the workers' pay cheques.

The second reason is that it was inevitably apparent to the interviewees that the questionnaire dealt with rotation employment situations, and that the government (or in the case of Coppermine, Gulf Oil Canada) was interested in people's attitudes toward rotation employment, and toward various rotation alternatives. Implicit, though of course unintended, in this approach was the possibility that the employment might be terminated if people's attitudes toward it were negative. It was of course also generally known that white people usually believe wage employment is a good thing for native people, and the interviewing was of course being done for whites.

These aspects of the situations of the interview respondents, I fear, would induce them to emphasize or exaggerate their interest in longer work periods, and to mute preferences for shorter periods. The structure of the situation inevitably introduced biases which, though unintended, elicited responses favorable to rotation employment and to longer work periods away from

home.

Such probable biases cannot be lightly dismissed, because the consequences of long work schedules are so pervasive and profound. As Homans argues in his book, The Human Group, shared activity and interaction is ultimately the source of affection, esteem, group solidarity, effective social control, and so on. Where people are usually together, the spectre of loneliness is banished. They can help and support each other in time of need. Mistrust and misunderstandings are unlikely to arise, and if they do, they are usually easily dealt with. Children can be jointly raised, the worries, tribulations, and joys that they bring shared. People can afford a more open, responsive approach to life.

Where people, and particularly families, are separated, the opposite of all these statements tend to be true, and probably the more so the longer the period of separation. Tendencies toward loneliness, inability to communicate, mistrusted fidelity and violent, vengeful conflict are all increased.

As a result, I dare not risk anything but a cautious, conservative approach to the interpretation of data relating to questions of optimum rotation cycles. If this report and its component recommendations have any chance of affecting policy at all, the consequences of error for the lives of many native people in the north could be serious indeed. The reader should be aware that this approach is taken in this study, and is urged to adopt the same one himself.



## Definitions

For the purposes of this report it is necessary to define several terms to insure clarity of communication.

Work rotation employment refers to all employment where the employee, on a continuing basis leaves his home and travels to a more or less distant work place where he works for a predetermined number of days, eating and sleeping at facilities provided at the work site, before he again travels home. Thereafter his time is his own for a predetermined number of days until it is again time for him to travel to the work site to repeat the rotation cycle. Typically there is no variation in the time the employee spends at the work site since he is replaced by another worker who has been prescheduled to take his place when it comes time for the first worker to be rotated home. On occasion, however, there are more flexible arrangements such that the employee is required to work for the predetermined period, but he may be permitted or encouraged to work for a longer period, "sticking it out" as long as he can, before he is rotated home.

Work period refers to the number of days that the employee is to remain at the work site before he is rotated, or is eligible for rotation home.

"Long break" refers to the predetermined number of days that the employee has at home, when his time is his own, before he is obliged to report again to be transported back to the work site.

## Organization of the Report

It is assumed that many readers who may be interested in the conclusions and recommendations may have little or no interest in the data base for those conclusions. Accordingly, Chapter II presents a comprehensive summary, which includes the results, conclusions and recommendations of the study. It can be read alone by those who want to restrict their attention to such an overview. In the remaining chapters are found the detailed data analyses which led to these conclusions and recommendations.

The result is of course a certain amount of inevitable repetition of material for the reader who reads the entire report. However this organization should increase the efficiency with which most readers can use this study. Those interested in detailed presentation and discussion of the data should be prepared to skim the summary discussions at the end of chapters where they recall the details from Chapter II. On the other hand, they may prefer to proceed from Chapter I to Chapters III through IX, and to return to Chapter II only when they are in a position to judge for themselves the validity of the conclusions and the appropriateness of the recommendations found in the second chapter.

The content of the seven substantive chapters of this report is as follows. Chapter III presents the results of a review of the published literature bearing on work rotation employment, and on the industrial employment experience of north-



ern native peoples. Chapter IV discusses the consequences of a seven days at work followed by seven days at home rotation cycle recently established at the Rabbit Lake Mine in northern Saskatchewan. Chapter V contains an analysis of the consequences of a 14 days at work followed by seven days at home rotation cycle established by Gulf Oil Canada in their hydrocarbon exploration activities in the Mackenzie Delta. Chapter VI presents a comparison of the attitudes and the work performances of Coppermine, Mackenzie Delta, and white workers to the 14 days at work followed by seven days at home rotation cycle established by Gulf Oil Canada in their Mackenzie Delta operations. Chapter VII deals with the consequences of a 20 days at work followed by 10 days at home rotation cycle established by Pan Arctic Oil in their hydrocarbon exploration activities in the High Arctic. Chapter VIII describes the consequences of a 30 days at work followed by seven days at home rotation cycle established by the Hire North project of the Territorial government at its camp to train heavy duty equipment operators. Chapter IX contains an analysis of the consequences of a 42 days at work followed by 14 days at home rotation cycle established by Strathcona Mineral Services for workers constructing the mine facilities at Strathcona Sound on northern Baffin Island.

## CHAPTER II

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In this chapter we first present an overview of the findings from the review of the literature, and from our data on the attitudes of workers and their families toward various work rotation schedules and on the effects of rotation employment on families and communities. This is followed by a statement of conclusions based on this summary of relevant findings. The chapter ends with a set of recommendations concerning the part that rotation work should continue to play in the employment of native people in the N.W.T., and the controls that should be considered on such employment arrangements to safeguard the health and welfare of northern native workers, their families and their communities.

#### Summary

During the research for this study there was a library search for relevant published material, a search for relevant unpublished material, reanalysis of relevant data which had been collected during the course of other research work, and collection of new data specifically for the purposes of this study.

Published Studies. A search was conducted for four types of published studies: (1) field studies and case studies of the



attitudes of workers from various backgrounds toward various work rotation arrangements, and the effects of these arrangements on the welfare of workers, their families, and their home communities; (2) laboratory and field studies of human reactions to the effects of isolation and confinement, and to harsh or unfamiliar environments; and (3) ethnographic studies relevant to the industrial employment of Northern native peoples.

1. Surprisingly, no published reports were found of comprehensive studies made anywhere in the world dealing with attitudes toward, or effects of rotation employment, a remarkable finding in view of the "development boom" which has sustained such employment at high levels for the past 25 years. Several small surveys of some effects of relocation of northern native workers in Canada were found, and these are summarized in connection with the ethnographic studies below. Consultation with three specialists in industrial relations established that they could not recall ever having seen any such published work, and a painstaking follow-up of the possible sources that they suggested proved to be entirely fruitless.

2. The published literature on field and laboratory studies of human reactions to isolation, and to harsh or unfamiliar environments has definite marginal relevance to the subject of this report. On the basis of the sources which were examined, the following conditions appear to be associated with increased ability to tolerate stresses associated with isolation and/or confinement.

a. Careful briefing of personnel concerning the char-

acteristics of the harsh or unfamiliar situation that they will be entering.

b. Voluntary, as contrasted with involuntary isolation or confinement.

c. Isolation which is instrumental toward achievement of an important goal (high earnings, or obtaining important scientific data) as contrasted with isolation which is obstructive to important goals.

d. Shorter duration isolation as contrasted with longer duration isolation.

e. Isolation experienced as a member of a group, as contrasted with solitary isolation.

f. Isolation in adequate, uncrowded physical facilities, as contrasted with isolation in cramped facilities.

g. Isolation when the larger environment is known to be free of unusual threat as contrasted with isolation when the larger environment is perceived as unknown and threatening.

h. Isolation in contexts where the logistical support (provision of needed goals and services) is known to be adequate, as contrasted with isolation in contexts where logistical support is inadequate or undependable.

i. Isolation in contexts having much environmental variability, as contrasted with environments having little or no environmental variability.

j. Isolation where adequate opportunities for meaningful work exist, as contrasted with isolation where work opportunities are inadequate, and/or meaningless.

k. Isolation when the quality, choice, and quantity of food is good, as contrasted with situations where the quality and/or quantity of food is sub-standard to that normally known.

l. Good and frequent communication of those in isolation with those "outside", as contrasted with poor communications.

m. Lack of privacy in experimental groups is associated with the appearance of fewer anxiety symptoms as contrasted with privacy.

n. People of similar background experiencing isolation together as contrasted with people who are dissimilar.

o. Satisfaction with the kind of work to be performed as contrasted with dissatisfaction with the work to be done.

3. The ethnographic research which was surveyed dealt with the reactions of Northern natives to modernization, to wage work, and to the experience of relocation for employment. Most of the materials that were found dealt with Inuit groups, and in the case of Clairmont's research (1963), with mixed Inuit, Indian, and Metis groups. Only Deprez's (1973) and Lloyd's summary of native employment of the Anvil Mine (1974) deal explicitly with Indian and Metis people.

The following conclusions with respect to the responses of the native people of the N.W.T. to modernization, wage employment, and relocation for employment seemed warranted on the basis of the various ethnographic materials that were surveyed.

1. In those areas where intensive commitment to trapping became established, as early as the 1920's in some areas, periodic separation from family and community has been a common and



expected aspect of the man's role. Trapping involved not only considerable isolation, but also a certain amount of privation and danger, while on the trap line.

2. The plight of many Inuit groups seemed so severe during the early 1960's that a number of careful and concerned students of their situation concluded that the best course of action would be to relocate them in southern Canada.

3. During the same time (early 1960's) there was increasing evidence of the growing disinterest of native young people in many aspects of the traditional life style, including trapping, fishing, and whaling for men, and working with furs for women. Wage employment became increasingly much more popular.

4. The opening of the nickel mine at Rankin Inlet provided employment for a period of five or six years, to up to 100 Inuit, most of them illiterate in English, with absolutely no educational or employment background. Many of the Inuit workers were quite unacculturated, being but recently relocated from the Barren Lands. They were quickly trained for a wide variety of jobs, many of them skilled, and some very highly skilled, and they worked satisfactorily and steadily at these jobs for a number of years, until the mine closed. There were initial problems in punctuality and dependability. These were resolved in part by a process of training the Inuit to a much sharper sense of time conscientiousness, in part by getting them to inform their foremen in advance when they would be absent, and by simultaneously developing a labor pool from which to draw replacements when men wanted to take time off. The con-

cept of work rotation thus appears to have some significance even when the work site is adjacent to the settlement, in providing an opportunity for psychological release from the noise and confinement of the work place, as well as for hunting, fishing, or other activities relevant to the Inuit worker's style of life.

Although beer was available for four hours nightly to the Inuit workers, drunkenness and drunken violence did not become a problem, perhaps because the availability of steady work preceded the availability of beer.

There was apparently virtually no attempt to provide systematic, adequate orientation to the whites with respect to their Inuit co-workers, or to the Inuit with respect to their white co-workers. The result was that the Inuit suffered unnecessarily, from prejudice, from white haranguing, shouting, and derision, to which the Inuit are far more sensitive than whites realize. The fact that these forms of ill treatment did not drive more Inuit "to drink" is important, and deserving of further study.

Evidence was presented of the difficulties experienced by unacculturated Inuit who were ill nourished because they did not know the kinds of groceries to buy, and ill-rested because they could not sleep in their small, over-crowded shacks or houses, when they reported for (shift) work. This suggests the need to provide optional bunkhouse accommodation for such men, particularly during a transition period, when the family first moves to the place of employment, and has not yet adapted to the

new environment (i.e., learned to avoid the temptations of "junk foods", or to be quiet when the worker is sleeping).

A survey which Williamson conducted just a few months prior to the final closing of the mine showed that over 80 per cent of the men interviewed wanted to continue in wage employment, rather than to return to a hunting life.

5. Several experiences involving the relocation of Inuit families to employment centres in northern Alberta, Saskatchewan, Quebec and in Yellowknife (most from Rankin Inlet), showed that the men typically made good work adjustments, and were highly thought of by their employers. However there were difficulties outside of the employment area, including lack of adequate housing and of adequate recreational opportunities, difficulties in the adjustment of wives to their new surroundings leading to pronounced alcoholism in some cases, and difficulties with absent relatives leading to sudden decisions to return to homes in the north in some cases. Nevertheless, Stevenson's (1968) concluded that the Inuit who had experienced relocation had shown themselves to be so adaptable that either rotation work employment in the north or employment at relocation sites in the Provinces were realistic and appropriate alternatives to consider for them.

6. Following a careful study of all of the available data on the relocation experiences of the Inuit as of 1974 Williamson and Forth concluded that there are at least ten factors which are associated with successful relocation adjustment: maintaining close kinship ties, strong motivation to make



the move, previous relocation experience, detailed advance planning before recruitment takes place, generous funding for relocation projects, adequate communication between those relocated and their old home communities, adequate minimal mastery of English, access to people who are good models for desirable new patterns of behavior, adequate housing, and an environment which is not frightening or disturbing, and provides needed resources (Williamson and Forth, pp. 86-102). To this should be added the availability of counseling help, both before the move is made, as well as for the first six months or more after relocation.

7. Lubart concludes from his study of the psychodynamic problems of adaptation of Inuit of the Mackenzie Delta that the men and women of this area have developed distinctive problems. Among the men these problems relate to feelings of inferiority as compared with white men, and of resulting hostility toward whites, dislike of their authority, etc., which are handled by increased drinking. For women, the consequence of their exposure to formal education and to the white life style is disinterest in native men, a tendency to throw themselves at white men in hopes of so securing a white husband, and resulting feelings of inferiority, shame, guilt, and hostility, which are handled by increased drinking. Needless to say, these attitudes on the part of the women exacerbate the emotional problems of the men. There is a distinct suggestion in his work that if native men are to achieve relative equality with white men in the eyes of both native men and women, they must achieve some

degree of parity in employment and life style.

8. Deprez's study (1973) of the employment of native people at the Cominco Pine Point Mine shows that significant obstacles to this employment existed for at least the first five years the mine was operating, for the native people. These included lack of access because there was no road between Fort Resolution and Pine Point, lack of housing at Pine Point, and lack of Cominco and Government policy and programs to facilitate employment of native people. Eventually the needed road was built, some rental housing was provided, and an employment liaison officer position, and employment training programs for native people were established. But as Deprez notes they were "all seen as separated and independent programs" (p. v); they were not coordinated to maximally facilitate employment of natives by Cominco. In the face of these obstacles it is noteworthy that as of the end of 1970, the natives had worked longer average durations than had the non-natives. Contrary to popular prejudice, the hiring and severance patterns of the native employees did not suggest a distinct pattern associated with the changing seasons, and were quite similar to those for white employees. Had the native workers received the same "breaks" as the white workers their work records must have been even more satisfactory. Thus the adaptability of Indians in the N.W.T. to the type of industrial employment offered at the Pine Point Mine is well demonstrated.

9. The information Lloyd reports (1974) on the implementation of the agreement to hire specified ratios of native

workers at the Anvil Mine near Faro, Y.T. shows clearly that little was done to overcome the inevitable difficulties. No systematic or formal efforts were made to prepare natives for relocation to the mine site, or to brief them on work opportunities and management expectations. No formal orientation was provided to white work supervisors, foremen, or co-workers, concerning the cultural background of native workers, communication problems to be anticipated, or how to work with them to elicit the most effective and persistent work performance. No family housing was provided. Native workers had to live in single status quarters and get away to visit their distant families as best they could, a situation sure to produce high absenteeism and turnover rates. No trained counselling personnel were provided to help the native workers deal with the kinds of distinctive adjustment and communications problems that those with little or no prior industrial employment would inevitably experience. The result was that of a total of 134 native "hirings" for which data are available during 1970 through 1973, less than one-quarter (22 percent) stayed on the job for longer than six months. Unfortunately data are not available on the 97 individuals, 23 of whom were hired two or more times. Such poor work showings must be expected, however, where the provisions to accommodate and integrate natives into the work setting are so lacking.

10. It is apparent from the published material available to us that there has not yet been an instance in northern Canada where native people were integrated into industrial employment



in a carefully planned way. Such planning would insure adequate orientation of the native workers and their families, the white supervisors and co-workers and the receiving community. It would provide adequate housing, and adequate adjustment counselling help to native workers and families throughout at least the first year of their relocation. It would make adequate arrangements so that communication failures between native families and their original home communities, and native workers and their supervisors could be expeditiously dealt with. The case of the Anvil Mine seems to show clearly that almost no progress has been made in such accommodation of native workers since employment of the Inuit at the Rankin Inlet mine almost 30 years ago.

Rotation Employment: 7-7 Day Cycle. An unpublished study by Scott (1975) reports on the impact of native workers and on their home communities of employment at the mine at Rabbit Lake, Saskatchewan on a rotation schedule involving seven days at work and seven days at home. The following points from this study are of interest:

1. The work is performed by rotating work crews. Each crew works seven, 12 hour days, with an hour off for a hot, mid-shift meal. Thereafter each crew member is returned home and his time is his own until he is again returned to work, seven days later. No overtime is paid.

2. From the start, Gulf Minerals has been committed to hiring a large number of native workers for the production operation.

3. In the process of recruiting native workers, Gulf

officials approached Indian bands on reserves within about 200 miles of the mine in order to discuss employment opportunities. Their approach was open, and sensitive of native hopes and concerns. As a result, relationships characterized by mutual feelings of trust and responsibility appear to have been established between the company and the native bands.

4. Gulf policy from the outset has been not to employ natives as laborers, since they know natives to be very sensitive to the common pattern of offering them only unskilled, low responsibility, low paying work. Indians who were hired were immediately placed in training for jobs operating equipment and for supervisory positions.

5. As at the Rankin Inlet mine, Gulf has proceeded on the assumption that it could effectively train Indians for semi-skilled and responsible positions who had little or no formal education and little or no relevant experience. After less than a year of operation Gulf officials felt that this assumption had been justified on the basis of the performance of the men employed, who were typically illiterate in English and lacking prior experience. They are now performing at least satisfactorily, and frequently beyond the standard expected of white operators.

6. Working cooperation between native northerners, native southerners and southern whites has been excellent, no doubt in large part because the company's policy of hiring natives on an equal footing with whites is carefully explained to new employees and those who find this difficult to accept are

told to look for work elsewhere.

7. As of August or September, 1975, turnover of northern natives appears to have been relatively low. Of the 17 initially employed, three had been fired, one for drinking and two for repeated lateness in reporting back to work after the long break. One had quit to accept other employment in his home settlement. Turnover among white employees appears to have been comparable.

8. There is evidence that this employment has resulted in increased alcohol consumption in the workers' home communities, at least in part because of (1) unprecedentedly high incomes earned, and (2) the continued existence of traditional expectations that surplus income, of whatever kind, will be shared.

9. Neither Scott, nor Gunn (1975), the Commissioner appointed to make a recommendation in connection with Gulf Minerals' application for the seven and seven work rotation schedule, were able to discover any worker dissatisfaction with the seven and seven work rotation schedule, at all. By contrast, numbers of workers said they would look for employment elsewhere if it were abandoned in favor of relocating their families to the mine site.

10. There are two possible contra-indications to continued rotation employment in the material we have considered -- the indications of lateness on the part of some native workers after their long break, and the evidence of increased consumption of liquor in the home settlements of native workers. The first, we feel, is inevitable during a transition period for many of the



Northern natives because they have not experienced steady wage employment before. Further, the incidence of the problem appears to be relatively modest, according to the information available, and it may therefore be hoped that this problem will tend gradually to disappear. The second appears, from the information available to us, to result from increased availability, and unequal distribution of income in the settlements, rather than from rotation employment per se.

11. Accordingly no indications of the unsatisfactoriness of a seven days at work and seven days at home have emerged from this consideration of the information available to us on the work rotation arrangements at the Rabbit Lake Mine in Saskatchewan.

Rotation Employment: 14-7 Day Cycle. Hobart has produced two unpublished reports (1973, 1974) of studies of the impact of rotation employment involving 14 days at work and seven days at home, on the workers, their families, and the settlement at Coppermine. The data available for the first year impact study include:

Data from interviews with the workers, their wives and their children.

Data from interviews with informed whites who were long term residents of Coppermine.

Data from interviews with the work supervisors of the Inuit workers.

Data on the work duration, work persistence and work dependability of the Inuit workers.

The results of analysis of these data may be summarized as follows:

1. At the end of their first year of experience with the 14-7 work rotation program, the Coppermine workers were virtually without exception, favorable to it. Most said they wanted to continue in it the following year, and would prefer longer work periods. While most of them said that they did miss their wives and children and worry some about their welfare during their absence, they did not feel these things keenly, apparently. Virtually all clearly wished to continue to take advantage of this employment opportunity, despite the emotional costs that they may have paid.

2. The responses of the Coppermine wives were nearly identical: they had to pay some emotional price during their husbands' work absences, but in virtually all cases these were not felt to be heavy. Most said they wanted their husbands to work the following year and for a longer work period. The very significant economic advantages resulting from their husband's employment were apparently felt by all but a few to strongly outweigh the costs they experienced.

3. The responses of the children of the Coppermine workers fell into the same pattern. While many of the children said that they missed their fathers when the men were away, all said that they would like their fathers to be employed at this rotation work the following winter, and all were clearly delighted with the greater availability of money in their families, and of the things that money could buy.

4. Data which were examined on the work duration, work persistence (i.e., relating to how late in the season men stayed on the job), and work dependability (number of interruptions) of the Coppermine workers showed that the men did not work as many total weeks, as late in the season, or return to the job after their long break at home as dependably as their verbal statements might lead one to expect. However the requirements of home responsibilities, which were not explained to or not understood by their foremen, account for some of the apparent lack of persistence and dependability, and of course also directly influence work duration. Further, some transition time must be expected to work out problems of adaptation, both for older men who have never had seasonal employment opportunities before, and for young men who have never had any employment before. Young white workers also exhibit these same problems of adaptation to steady employment, of course.

The data available for the second phase of the impact study, conducted at the end of the second year of employment of the men from Coppermine in hydrocarbon exploration in the Mackenzie Delta made use of the following data, in addition to those listed above.

Data on work duration, work persistence and work dependability of white and Coppermine Inuit workers employed at the same work sites.

Supervisors' ratings of various aspects of the work performance and work adaptation of the white and Coppermine Inuit workers under their control.



Data from interviews with a relatively small number of Coppermine workers, and their wives and children at the end of the second employment season.

The results of the analysis of these data may be summarized as follows:

1. The Coppermine workers interviewed at the end of their second employment season with Gulf gave virtually the same pattern of responses as they did at the end of the first year. They reported that there were some emotional costs associated with the work, but they wanted to be employed again at such work the following year, and if given the choice, a majority would prefer to have the work period lengthened, so that they could earn more. None reported experiencing greater difficulties of any kind during the second year of their employment than they had experienced during the first year of their employment.

2. A similar pattern was found in interviews with wives of Coppermine workers who had had two years of rotation employment experience. Again there were reports of loneliness and worries, but all of the women said they would like their husbands to have such employment again the following season, and all said they would like him to have it for "as long as possible". Only one woman said she was more worried or unhappy the second year than she was the first, and one-third said they were less worried the second year than the first.

3. Children interviewed at the end of the second employment year showed the same pattern of responses as those found at the end of the first year. They liked the things that their

fathers' earnings bought, and though they did miss him when he was gone, they wanted him to be employed the following season.

4. Comparison of behavioral indicators of work adjustment of the Coppermine workers for the 1972-73 and 1973-74 employment seasons shows significant improvement in all three. Work duration improved from eight to 10 weeks, work persistence improved with the median date of termination advancing from April 15 to April 30, and work dependability improved with those experiencing no work interruptions increasing from 35 percent of those working in 1972-73, to 75 percent of those working in 1973-74.

5. Data from supervisors' ratings of Coppermine workers on their work performance, their ability to withstand the strains of work in the Arctic, and their "Camp Citizenship", etc., show that between 44 and 66 percent of the men were rated "above average" and no more than 8 percent were rated "below average" on these indicators. Workers who had high ratings were typically under 30 years of age, married, with several children, no more than four years of schooling, and with previous trapping experience, who had usually worked for Gulf the first year.

Data available on the impact of this rotation employment on the settlement at Coppermine for the three years, from 1972-73 through 1974-75 include the following:

Data on the income and expenditures in the community for 1971-72 through 1973-74.

Data on liquor consumption, on incidence of respiratory infections among pre-school children (used as an index of parental

neglect), on drunken woundings, and on convictions in the Magistrate's Court, for 1971-72 through 1973-74.

Examination of these indicators of the effects of Gulf employment on the settlement at Coppermine show that this employment has very significantly increased the volume of cash flow into Coppermine as contrasted with the latest pre-employment year. One consequence was a substantial increase in volume of liquor imported into Coppermine during the first pre-employment season. However it declined during the following two years, to pre-employment years. The data on violent woundings and drunken assaults show a similar pattern although the recent decline has not been so great as in the case of liquor imports. There are no indications, in the data on respiratory illness presented, of any increase in parental neglect of small children, at any time during the employment period.

During 1974-75, Gulf Oil employed about 45 workers from Delta communities on 14-7 rotation employment at Mackenzie Delta work sites. Data are available from interviews with some of the workers, and with their wives and children. Data are also available on their work duration, work persistence, and work dependability, and they were rated by their work supervisors as well.

The results of analysis of these data may be summarized as follows:

1. Our data on the Delta workers show that a majority of them were unsatisfactory workers, primarily because they quit after the first rotation period. Those who quit tended to be younger, more acculturated, better educated men, and their beha-



avior in quitting after a brief work experience is similar to that of young white workers. The older men, who had little formal schooling and who had often had trapping experience, reacted favorably to the rotation employment and typically had good work records and good supervisors' ratings.

2. Data for Delta wives show that the Tuktoyaktuk women show a pattern of rather enthusiastic acceptance of oil field employment for their husbands, despite the emotional costs of the resulting separation. The Aklavik women, on the other hand, express much more reluctance and dissatisfaction. These differences probably reflect the fact that within the last 10 to 15 years, the people of Tuktoyaktuk have known much "harder times" than have the people of Aklavik. The fact that a sizable proportion of the Delta wives did report experiencing a shortage of game meat at home as a result of their husband's rotation work employment, suggests the desirability of considering a ceiling on the number of days that men with families might work, without taking a long break at home.

3. The Delta children were generally favorable toward employment of their fathers in rotation work; few mentioned negative reactions to their fathers' absences.

4. It is not possible to make any statements about the effect of this employment on the home communities because such a small proportion of the labor force in these communities were working for Gulf Oil.

The results of the comparative analysis of the work performance data and the supervisors' ratings data for the Copper-

mine, the Delta, and the southern white workers, may be summarized as follows:

1. There are no indications that the adaptation of Coppermine workers to the rotation work experience was less adequate emotionally speaking, or less satisfactory as work performance, than was that of the much more highly selective sample of white workers. There are, indeed, indications that the adaptation of the Coppermine workers was in fact somewhat superior to that of the white workers.

2. In the case of the Delta workers there were indications that their adaptation was distinctly less satisfactory than that of either the white or the Coppermine workers. We suspect that this may be due in large part to the relative immaturity of the Delta workers. As compared with the other two samples they are both younger, and more socially immature in terms of not having married and assumed the obligations of supporting a family. Analyses of the characteristics of white "oil patch" workers which are not reported here show that young and unmarried white workers show many of the same work performance characteristics as do the Delta workers. This is particularly apparent among the white roughnecks in the present sample. Experienced white work supervisors in the Delta will tell you as well that many of the unskilled and semi-skilled native workers in the Delta have been "spoiled" by the high wage rate and overtime rates that are everywhere available, and the ease with which it is possible to find a new job after working briefly at a previous job. Thus the situation in the Delta has been if not rewarding,

at least lacking in penalties for men who work briefly at a job and quit because they have a bit of a "bankrole" and are restlessly tired of working.

General Summary: 14-7 Day Work Rotation. None of the various kinds of data which we have analyzed, and none of the intergroup comparisons which we have made, give any indication of unusual or significant adverse, painful, dangerous, or costly psychological or social effects of the rotational employment for Coppermine. There are thus no contra-indications to the continuation of this rotational employment for Coppermine, or by extension for similar communities. No such statement can confidently be made with respect to the Delta workers, but nor is it possible to say that there are indications of significant adverse effects of this employment. The Delta sample was too small, and particularly was composed to too high a proportion of young, socially immature workers, to permit drawing conclusions from the few and erratic data available.

Rotation Employment: 20-10 Day Cycle. As yet unpublished data are available on the reactions of people in Pond Inlet and Arctic Bay on northern Baffin Island to the 20-10 day rotation employment offered by Pan Arctic Oil, for the 1973-74 work season. The data available include:

Data from interviews with the workers, their wives and their children.

Data from a few interviews with whites who were long term residents of Arctic Bay.

Data from interviews with the work supervisors of the



Inuit workers.

Data on liquor consumption, on incidence of respiratory infections among pre-school children, on drunken woundings for Arctic Bay and Pond Inlet.

Data on convictions in the Magistrate's Court for Pond Inlet.

Data on the work duration, work persistence, and work dependability of the Inuit, and white workers employed at the same work sites.

Supervisors' ratings on several aspects of the work performance and the work adjustment of the Inuit and white workers employed at the same work sites.

The results of analysis of these data may be summarized as follows:

1. Our data show that the Baffin workers did not respond as enthusiastically to their work rotation experience as did the Coppermine workers. However they were yet strongly favorable, as seen in the very large proportions who endorsed the long work rotation schedule, and who reported that they would like to work for Pan Arctic again next year. It is very clear from the men's responses, that the separation from their families does bother them, and that they worry about the welfare of their wives and children when they are away at work. But it seems equally clear from the pattern of their responses that this is a price they are prepared to pay for the opportunity to work, in the absence of opportunities closer to home.

2. The interview data for the Baffin Island wives show

that while many of these women say that initially they were reluctant to have their husbands accept rotational employment with Pan Arctic, they eventually became quite accepting, if not enthusiastic about it. The only ones who were definite in not wanting their husbands to take such employment again the following year were the five whose husbands had found permanent employment in the settlements. It is noteworthy that these wives report less trouble and less worry during their husband's absences than did the Coppermine women. A higher proportion of them did report having less meat as a result of their husbands absences at work, as compared with the Coppermine wives, but this was not sufficiently serious for them to repudiate employment for the coming year.

3. The data from interviews with the children show that while many of the children do miss their fathers, they do not miss them profoundly, and that the material advantages resulting from their fathers' employment absences far exceed the emotional costs.

4. The data on work duration, persistence and dependability show that the Baffin Island workers had adapted very well to the demands of rotation employment on a 20-10 day rotation schedule with Pan Arctic Oil. In terms of duration, the median number of weeks worked was 14, and 20 percent worked more than 5 months. In terms of persistence, almost two-thirds, 63 percent, remained until the first of May. In terms of work dependability, two-thirds had no interruptions which were not authorized or unavoidable. These data are particularly impressive given the

slight exposure of the men from these communities to prior wage employment, and the emotional reactions that some of them reported to separation from their families.

5. The results from the supervisor's ratings of these men in terms of their work performance, work adaptation and camp citizenship are even more outstanding. Thus about one-third were rated "excellent" on job performance; about one-half were rated "excellent" on adaptation to the "stresses and strains of work in the Arctic", and half were rated "excellent" on "camp citizenship". Clearly these men have adjusted very well to the 20 day work period employment available to them. It is to be emphasized, particularly, that these men represented not a select minority of the male labor force in Pond Inlet and Arctic Bay, but rather a fairly sizable proportion of the male workers in these two settlements. We are accordingly quite confident that if an equal proportion of the southern Canadian white labor force were randomly selected to work at similarly hard or unfamiliar work, they would produce a much poorer work record, and would earn much poorer ratings by their supervisors on work performance.

6. The data that we have reviewed on the response of Inuit and white workers ~~in the Arctic~~ at work and 10 days at home rotation pattern that they were involved in yielded the following pattern of results. There was consistently more variability in the Inuit performance and rating indices than there was for the whites. On two of the indices there were no differences, or only insignificant differences between the two groups of workers: work duration and work persistence. On two indices



the white workers were clearly superior - nominations for membership on a "first rate crew" and work dependability, that is number of work interruptions. However we must emphasize, with respect to the latter, that there were compelling structural reasons why the Inuit workers had many more work interruptions than the whites, so this differential should be discounted. There were two indices on which the native workers were clearly superior - ability to withstand the stress of working in the Arctic and camp citizenship. On the final index, the work performance rating, the Inuit workers receive both more "excellent" ratings, and more "below average" ratings than did the white workers, somewhat more of the latter than of the former.

7. There were no indications in the data that we have reviewed, suggesting that the essentially unselected workers from Pond Inlet and Arctic Bay respond any differently to the stresses of working a 20 day at work and 10 day at home rotation schedule, than do the highly selected white workers. However looking at the whole group, since the responses of the Inuit workers to the work situation are quite comparable with those of the white workers, we must conclude that the "20 and 10" work rotation schedule works no distinctive hardship on the Inuit, and no hardships of a magnitude worthy of particular concern.

8. Analysis of the data on liquor consumption, respiratory infections, violent woundings and court convictions, used to index the effects of employment on Pond Inlet may be summarized as follows. Unfortunately liquor consumption data were not available prior to April, 1973, thus preventing development of

a pre-employment base line. The data on the incidence of respiratory infections in pre-schoolers show no evidence of an increase after the employment began. The data for the employment years show much fluctuation -- never less than 45 cases between adjacent years. Thus the variations in rates which were found must be interpreted as part of the general pattern of random fluctuations that these data exhibit.

Exactly the same conclusion must be placed on the data relating to woundings. The increases in 1970-71 and 1972-73 can only be interpreted as constituting a part of the random fluctuation which the data generally reflect.

The same thing cannot be said of the data on convictions in the Magistrate's Court, which increased very sharply. However the apparent increase in these convictions must largely be understood as a consequence of an increased willingness to complain by the local people, and an increased ease of complaint resulting from the recent availability of telephones in the community. That these influences would totally explain the very sharp rise in convictions seems very doubtful, but a confident conclusion based on these data seems equally difficult. The undeniable evidence for a decline in the value of liquor imported into the community since early 1973 must be seen as further justification for such a conclusion.

9. The overall collective pattern of these individually rather spotty data is sufficiently consistent in its failure to show any general trend, that we feel confident in asserting that they show no indications of increased stress in individuals or of

increased problems in the community. Thus we must conclude that the employment of substantial numbers of Pond Inlet men by Pan Arctic on 20 and 10 day rotation work schedules has not produced any effects, discernible to us in the data we have consulted, contra-indicating the social or psychological desirability of this pattern of rotation employment.

10. Analysis of the data on liquor consumption, respiratory infections, and violent woundings, used to index the effects of employment on the Arctic Bay community may be summarized as follows. Unfortunately, liquor consumption data were not available prior to May, 1973, thus preventing development of a pre-employment base line. The data on the incidence of respiratory infections in pre-schoolers shows a steady decline in such infections over the first pre-employment year, until the 1972-73 employment year, when there was some increase. This decline is apparent even when one adjusts for the effects of an influenza epidemic in 1973.

The information available to us on the frequencies of woundings requiring suturing, and of cases brought before the Magistrate's Court warrants the confident conclusion that these indicators reflect no increase in problems in the community since the onset of heavy rotation employment. Finally, the recent data on value of liquor imported into the community reflect a distinct decline in such imports.

11. The overall pattern of these individually rather spotty data is sufficiently consistent that we feel confident in asserting that they show no indications of increased stress in



individuals or of increased problems in the community resulting from employment of substantial numbers of Arctic Bay men by Pan Arctic on 20 and 10 day rotation work schedules.

General Summary: 20-10 Day Work Rotation. None of the various kinds of data which we have analyzed, and none of the intergroup comparisons which we have made, give any indication of unusual or significant adverse or painful, or dangerous, or costly psychological or social effects of the 20-10 day rotation employment. Thus there are no contra-indications of the continuation of this rotation employment, at least for the current populations of the Pond Inlet and Arctic Bay communities, or by extension for similar communities.

Rotation Employment: 30-7 Day Cycle. Unpublished data are available which reflect some of the reactions of workers from 16 or more communities in the Mackenzie River drainage to the 30-7 day rotation employment available in connection with the Hire North Training Program. The data available, which are distinctly less comprehensive and less complete than in the cases of the 14-7 day and the 20-10 day work rotations, include:

Data from interviews with work supervisors and the Superintendent of the Hire North operator's training camp, during the fall of 1975 and the summer of 1976.

Data from interviews with all of the trainees who were in the camp during the first week of August, 1976.

Statistical data supplied by Hire North on the home communities, the years worked, the job classifications, the

employment periods, the total hours worked, the pay rates and increments received by most but apparently not all, of those who worked at the Hire North operator's training camp from its opening in April, 1973 through December 31, 1975. These data are unfortunately quite incomplete.

Data from a survey made by Hire North during September, 1976 of the current employment status of all who had been enrolled in heavy duty equipment operator training and had left the program either with or without having earned an Operator's Certificate, as of August 31, 1976.

The results of the analysis of these data may be summarized as follows:

1. Supervisors provided information based on their observations of the trainees in the camp situation. With respect to camp adjustment, the more perceptive observed that homesickness, shyness and worrying about loved ones at home were not uncommon among the young trainees, though their expression of these were masked. The third week of the work period was the time when adjustment problems were said to be experienced most strongly.

The supervisors reported rather wide differences in work performances, with the best observed among those from the smaller or more isolated settlements, and the worst found among those from the largest communities. The latter were harder to work with and less responsive to directions. The younger men were easier to work with but often showed little commitment to learning. Generally, lack of commitment to learning and to the job, lack of respect for the machinery, and resistance to setting a

good work pace were commonly reported problems.

Shyness, homesickness, and difficulties in communicating with whites were all reported as associated with poor work persistence. Persistence was better when there were several workers in camp from the same community.

The supervisors reported there were changes in the attitudes and motivation of workers during the 30 day work period. Workers' initial enthusiasm lasted for about the first two weeks, followed by gradual loss of interest and eventually the tendency to over-sleep. Nevertheless there was little indication of the build-up of tensions in the camp, at least in terms of overt behavior. Thus, no conflict was reported between whites and natives, and only one fight was said to have taken place in three years.

When asked how long they thought the ideal work period should be, the supervisors without exception said 30 days. Their response was dictated by considerations of productivity, and by the fact that this is the minimum work period in the construction industry in the north, however, rather than by their judgment that this is in fact best for the native people.

2. The interviews with the native workers in the camp, conducted in August, 1976, dealt primarily with their attitudes toward the camp situation, and their conceptions of an ideal work rotation schedule. Almost all reported that they liked camp life because they enjoyed being out in the bush and the camp was comfortable. Most surprising was the fact that in describing what they thought would be an ideal work rotation pattern, 70 percent



chose the 30 day period. Similarly with respect to the duration of the long break, about half said they would prefer a seven day "long break". It should be noted, however, that all but five were unmarried. Twelve hours was the most popular choice for length of the work day, and all but four said they preferred working seven days a week.

3. Analysis of the statistical data supplied by the Hire North office, which included data for both operator trainees and other natives who worked at the camp, shows several interesting patterns.

First, that Hire North was heavily committed to "giving people a chance" with little screening out of unlikely prospects is seen in the very high turnover experienced. Thus 41 percent of the entire sample worked no more than a full 30 day work period, and 30 percent worked only a single season. Although this probably reflects in part some dislike for such a long work period, it must be understood in the context that a great deal of publicity was given to Hire North, and it was very easy to get a job with that program.

Second, the number of rotation periods worked by the men in our sample did increase steadily during these years. Thus in 1973 no more than 26 percent worked more than two work periods, while for 1974 it was 45 percent and for 1975 the proportion was 55 percent. Third, the data show a steady increase in the number of men who began work early in the year. In 1973, only 26 percent of the men were hired on during the first quarter of the year, while in 1974 the proportion was 43 percent, and in 1975

the figure was 60 percent.

Analysis of these statistical data by the size of the worker's home community shows that those from the smaller and more isolated communities were more persistent in the total number of hours they worked per year, and in returning to the training a second and a third year, as compared with those from larger communities. These patterns must be accepted cautiously, because of the incompleteness of the data.

4. The Hire North survey of 1976 shows that about 56 percent of all the operator trainees who had terminated their training as of the end of August, 1976 had obtained their Operator's Certificates and 58 percent are known to have actually been employed as equipment operators. This suggests that the trainees reactions to the 30 and 7 day rotation schedule were not so negative as to inhibit most of them from completing their programs. It was the men from the smallest settlements who least often obtained their certificates, but they were probably at a disadvantage as compared with those from the larger settlements, in terms of their background experience and the difficulties they experienced in adjusting to the conditions of camp life.

General Summary: 30-7 Day Work Rotation. The information supplied by the supervisors interviewed suggest a pattern of changes in some workers during the 30 day work period involving increased loss of interest in the work, apathy, tension, and withdrawal. The workers themselves, who were primarily unmarried, with few exceptions said they preferred the 30 day work period,

though a number did say they would like to have a longer break at home. We suspect that the long work period must be partly responsible for the very high turnover rate found in this program. We must tentatively conclude, conservatively, on the basis of the incomplete data available to us, that the 30 day work period may be too long. The lack of any data on the reactions of mates, children of other family members to the 30 day separation period must make us even more cautious of any tendency to view the 30 day work period as desirable.<sup>1</sup>

Rotation Employment: The 42-14 Day Cycle. It is necessary to differentiate between the impact of 42-14 rotation work on the people of Arctic Bay, and the impact of this rotation work on the people of Igloolik, because the proximity of the Arctic Bay community to the Strathcona Sound work site (about 25 miles) made it possible for the Arctic Bay workers to go home every weekend. This was not possible for the Igloolik workers.

The data available to assess the consequences of this modified 42-14 day rotation work experience for the people of Arctic Bay include only data from interviews with the workers, their wives and their children, and from a few interviews with

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<sup>1</sup> Efforts were made in Fort Simpson, Fort Resolution, and Fort Wrigley to obtain data from trainees families. No fewer than four interviewers were hired and trained to do this interviewing, but none ever turned in even a single interview. As a result of these difficulties the interviewing of the natives at the Hire North camp in August, 1976 was done by the white investigator.



whites who were long term residents of Arctic Bay. The results of analysis of these data may be summarized as follows:

1. The interview data show that the Arctic Bay workers did not respond as enthusiastically about their experience working for SMS as the first year Coppermine workers did. However they were more enthusiastic than the Baffin Island workers whose work period, with Pan Arctic, was 20 days. That they were strongly favorable is seen in the proportions who endorsed the long work rotation schedule (broken, however by a day at home every week-end), and who said that they would like permanent employment at the mine after it is opened. It is apparent from the men's responses that the separation from their families under these conditions does not bother them as much as it did the Baffin Island workers, working the 20-10 day schedule. They do worry some about the welfare of their wives and children when they are away at work, but it is clear from the pattern of their responses that this is a price they are quite willing to pay for the opportunity to work, in the absence of employment closer to home.

The evidence is quite clear that their weekly return to their homes and the proximity of their work site to their homes safeguards them from the higher levels of concern for the family that were found for the Baffin Island sample working for Pan Arctic at camps very much farther from the home settlements for 20 day intervals.

2. By contrast with the sample of Baffin Island women whose husbands worked for Pan Arctic, who were initially reluctant to have their husbands accept the employment, but then became

more enthusiastic, it seems apparent that the Arctic Bay women in our sample were initially quite enthusiastic about their husbands' working at Strathcona Sound, but thereafter gave indications of much more ambivalence. A possible reason for this ambivalence is the fact that a clear majority of the women said that they had experienced a shortage of game meat since their husband's employment. In support of this, we noted that a very large minority of the men said that they never went hunting when they were home, on weekends we infer. The proportion of women reporting a shortage of game meat is the largest we have encountered in any of the samples considered to date. Loneliness and worry are not significant sources of dissatisfaction or concern, for all but a few of the women interviewed. It seems apparent that with the work site so close to the settlement and with the men able to come home on weekends, the loneliness and worry which were commonly reported by women in the other samples are not experienced.

3. The interviews with the children show that while many of the children do miss their fathers they do not miss them profoundly, and that they feel the material advantages resulting from their fathers' employment absences exceed the emotional costs.

Turning to Igloolik, it should be emphasized at the outset that the data we have available are unfortunately quite incomplete. No community impact data are available at all. The questionnaire data are available for no more than half of the men working by the first of December, 1975, and for an unknown

proportion of the workers' wives, since we do not know how many of those not interviewed are in fact married. Finally questionnaire returns were obtained for only three children in Igloolik. The most severe consequence of these circumstances are that we are not able to say whether or not there is bias in the data that we do have, and we are not able to say anything about consequences for the community as a whole.

Yet, despite these very significant limitations, if we take the data at face value and do not attempt to generalize to any larger group, there are some patterns which have significant implications for this report.

1. Igloolik men who were interviewed were quite enthusiastic about the work opportunity at Strathcona Sound. All said they felt that it was a good thing for the community, and all but a few said they would like to work there after the mine opened, though several added as a qualification, if their families could move to the Sound. At the same time it must be emphasized that these men reported missing, and worrying about their loved ones more frequently than did any of the other samples for whom we have data. They also report that their wives and children miss them, and that they are bothered by knowing this. Thus Igloolik workers are both more enthusiastic about SMS employment and more often report that they and their families are bothered by the separation, than the Arctic Bay employees of SMS. These differentials obviously reflect the alternative employment opportunities, and the more frequent visits home, which are available to the Arctic Bay men.



It is remarkable that when given a choice of options, a large minority of the Igloolik men said they would prefer an eight week work period, and all but four of the rest said they would prefer continuation of the current six week work period. Again we must interpret this as reflective of the scarcity of alternative employment opportunities in Igloolik, and the importance of purchasing power to these men. Their explanations for some of their responses give substantial support to this interpretation.

It is noteworthy that although many of the respondents failed to answer the question, all but one said he goes hunting for meat only "once in a while" (six) or "not at all" (two). Why they hunt so infrequently is not known.

2. The responses of the Igloolik wives show that these women were generally quite favorable toward the Strathcona Sound employment opportunity because there are no other opportunities which are closer or which involve shorter work periods. Generally they accept the separation quite stoically: they do not complain about the loneliness it occasions, and when they worry it is about their husband's welfare, rather than about their situations. However their interview schedules do reflect some of the problems resulting from long work periods. One we have not seen before: the financial difficulties which families experienced during the long separation period, perhaps due in part to infrequent payment of wages. The other, which we have seen before, is reduced availability, and perhaps shortage, of meat. However this was reported by a higher proportion of the

Igloolik women than we have seen in any other sample. As a result of these difficulties, a number of the women said they hoped their families could move to the work site.

Many of the women in this sample seem torn by the conflicting wishes to have their husbands home more, and to have the income which his long work periods at Strathcona Sound earn. This is seen in some of the patterns of response, and at times in the incidence of non-response. However, the majority, when given a choice of several rotation schedule options, say they would prefer a work period as long or longer than that now in force, over having a shorter work period with attendant reduced income. Whether this is actually in the best interest of their families and of the community, or not, we cannot say.

3. Too few interviews were conducted with children of the Igloolik workers (three) to warrant a summary statement.

General Summary: 42-14 Day Work Rotation. Our data show that in both Igloolik where there were not alternative employment opportunities, and in Arctic Bay where there were, most of the interview respondents voiced favorable attitudes toward this rotation cycle. In the case of Igloolik it was the lack of other alternatives which influenced these responses, and in the case of Arctic Bay it was the fact that the men were able to return home every weekend. However our data show that the Igloolik men said they missed, and worried about their loved ones more frequently than did any of our other worker samples. Both the Arctic Bay and the Igloolik wives more frequently reported experiencing a shortage of meat than the wives in any

of the other samples. Many of the Igloolik wives also reported experiencing financial difficulties during the long period when their husbands were at work. In view of these difficulties which were frequently reported, and the probability that there are numbers more which were not reported, we feel we must recommend against rotation schedules as long as 42 days in duration, at least for married men.

### Conclusions

The following conclusions have been drawn from the survey and analysis of the information available to this study, and summarized in the preceding pages. They are organized under the following categories: conclusions with respect to (1) rotation work as one of several alternatives; (2) conclusions based on the published literature; and (3) conclusions with respect to the consequences of rotation work for the workers, for wives, for children, and for the community.

The Work Rotation Option. There are of course a number of alternatives to rotation work for northern native peoples, which will be discussed briefly. The first, reversion to a hunting, trapping, welfare economy can be quickly dismissed for two reasons.

1. As long ago as 1962 or 1963, there was evidence from native peoples who had had substantial wage employment experience (Williamson, 1974 and Clairmont, 1963) and native peoples who had had little or no such experience (Van Stone, 1963; Williamson,



1974) that they would very much prefer wage employment to dependence on trapping. This finding is particularly impressive in the case of the relatively unacculturated Barren Lands Inuit who worked at the Rankin Inlet mine (Williamson, 1974) because their weaning away from the land was so abrupt.

2. Virtually the total impact of the educational program made available to native children in the past 10 to 15 years or more has been oriented toward a white-like work and settlement oriented life style (Hobart and Brant, 1966). This emphasis is so extreme that it has been described as a cultural replacement approach (Vallee, 1963). It would surely be a massive breach of faith with the generation which has gone through this educational program to attempt to redirect them, at this stage, toward a hunting and trapping existence.

The second option is to relocate Inuit workers and their families in those settlements or areas where there is work available for them, wherever that work might be. There have been examples of this involving Inuit in the N.W.T. within the past 20 years: Barren Lands Inuit were relocated in Rankin Inlet, and Williamson (1974) reports that a number of families moved from Baker Lake to Rankin Inlet to find employment in the mine because they were told to do so by the Northern Service Officer in Baker Lake. After the mine closed at Rankin Inlet, a few of the miners, together with their families were relocated to Yellowknife, to Lynn Lake, Manitoba, to Asbestos Hill in Northern Ungava, and to Tungsten in the Northwest Territories, all sites of mining operations (Williamson, 1974, p. 132). Other Inuit

workers with their families went to Grimshaw, Alberta to work on the Great Slave Lake Railroad.

We do not know what the consequences of such relocation would be under relatively optimal conditions: i.e., an adequately large group of families drawn from the same dialect group, which had adequate housing, and adequate provision for the wives to keep them relatively busy and happy -- although we must acknowledge that we do not know what that provision would be. However such optimal conditions have perhaps never existed; the conditions at the Itivia relocation village for the Barren Lands people at Rankin Inlet probably came as close as any. Stevenson's (1968) study of three of the relocation situations yielded the conclusion that the men were able to adjust well to the relocation experience, typically, and to acquire reputations as relatively dependable, hard workers. However the effects on the families, and particularly on the wives, were difficult at best, and sometimes devastating. Similarly, Williamson paints a pitiful picture of the difficulties of men at Rankin Inlet coming from very minimally acculturated Barren Lands families, dragging themselves to work ill-rested and ill-nourished because of the conditions in their homes. Lubart's discussion of the damaging psychological effects for both Inuit men and women being thrown too quickly into too sudden proximity with whites in the Mackenzie Delta is also relevant here.

Thus our conclusion must be that even where relocation of families to a village adjacent to a work site is feasible, this should often not be done where the culture shock would be

too great for the family, where adequate housing is not available, and where the prospects for disruption of familiar role activity of the wife and children are substantial. Far better to have the father absent himself from the family for a work period at least during an adequate transition period -- this is a pattern with which most Inuit families are already more or less familiar, and one that is much less massively destructive of family adjustment than is relocation to the work site. It should be emphasized, however, that this argument is explicitly limited to a transition period, and will probably be invalid once the transition concept is no longer relevant.

Conclusions Based on the Published Literature. Findings of studies reported in the published literature are relevant to (1) the duration of the work interval, (2) adequate foreknowledge of the work or isolation site, (3) meaningfulness of the work assignments, (4) food at the site, (5) facilities at the site, (6) characteristics of co-workers, (7) rates of payment, (8) communication with loved ones at home, and (9) knowledge of adequacy of relevant emergency arrangements. On the basis of these findings the following conclusions may be drawn.

1. Distinct ill effects of continuous isolation have been noted in the literature only after much longer durations than any of the work periods which have been tried thus far in rotation employment, from six months to a year. The only approximations of these effects which we have encountered in our research were found in the reports of foremen at both the Strathcona Sound mine site and the Hire North camp that workers pro-

ductivity fell off and they became more irritable during the last week of their work periods. These reports should be taken as a possible indication that work periods of 30 days duration or longer may be too long.

2. The published literature reports clearly that workers show far fewer signs of anxiety when they have been adequately briefed on the circumstances at a distant and possibly dangerous isolated work site, than where they have not. This fact is probably one of the explanations for the success that Gulf Oil and Gulf Mineral have had with their work rotation programs.

3. Where work is meaningful and enjoyable, the literature shows that the isolation experience is tolerated very much better than where the work activity is less well matched to the needs of the worker, because in the absence of other satisfactions or distractions, work comes to dominate more the workers' outlook and contentment.

4. The "familiarness", quality, and quantity of the food served in isolation situations is importantly related to morale, for the same reason cited in #3: in the absence of other satisfactions and distractions, food comes to dominate more the workers' outlook and contentment.

5. Adequate, uncrowded physical facilities, which incorporate some environmental variability also contribute to sustaining morale, again because in the context of some relative privation, the comfort and adequacy of what one yet has becomes more important.

6. The literature shows that isolation experienced as a



member of a group is less stressful than is solitary isolation, and isolation experienced with similar or compatible fellows, less stressful than is isolation experienced with dissimilar or incompatible fellows. This finding appears to be particularly relevant to native workers who may feel very much isolated from white co-workers, and who frequently experience at least some isolation from fellow Inuit or Indians because of the strength of place of dialect sub-grouping ties.

7. The literature shows that the stresses of isolation is very much better handled where the experience is instrumental toward achievement of an important goal, particularly as contrasted with isolation which is obstructive of goals. Obviously all isolation experiences must be obstructive of some goal attainment; hence it is inevitably provocative of ambivalence. Since the major goal of almost all rotation workers is income, the higher the wage rate the better the prospects that the worker will cope well with the stresses the work site and work period impose. Note, however, that very high wage rates may mitigate against his returning for a second or third work shift, after long breaks at home.

8. Relatively frequent communication with loved ones at home, so as to assure oneself of their welfare, and to assure them of the worker's welfare, reduces worry and anxiety and facilitates coping well with the stresses of an isolation situation. Because mail schedules between settlements and work sites are often infrequent and perhaps irregular, and because natives are sometimes not very literate, provision of adequate opportuni-

ties for telephone and/or radio-phone communication between workers and family members is important to the success of work rotation programs.

9. Most rotation work sites have a certain amount of built-in hazard, (personal injury, fire, isolation from the supply base, etc.) and perception of the amount of hazard may well be exaggerated because of ignorance or anxiety. Accordingly full and comprehensive briefing, in language clearly understandable by the worker, is important in minimizing this source of anxiety, and thus in helping the worker to better cope with the stresses of isolation work experiences.

Effects of Rotation Work for the Workers. On the basis of analysis of data on workers' attitudes, and of their work performances for work periods ranging from seven days, through 14 days, 20 days, and 30 days to 42 days, we must conclude that there are no consistent implications that work periods of up to 20 days have ill effects on the workers who have experienced them. In terms of attitude, the workers indicate that they want similar work the next season, and a majority indicate that they would in fact prefer a longer work period, if it were associated with higher earnings. Their work performances are typically entirely satisfactory. Supervisor's ratings and informal comments reflect no indications that the native workers in our samples are not quite able to sustain high level work performances throughout the length of the 20 day work periods they have experienced.

The data for the 30 day work period in force at the Hire

North training camp are more difficult to interpret, both because they are more ambiguous and because they are incomplete. Although most of those interviewed said they preferred the 30 day period, their turnover rates were very high, and their supervisors reported deterioration of their interest in the training program and their work motivation during the third week of the work period. Thus we must conclude that the 30 day work period does take a distinct toll of the men in the Hire North training camp who work this work period.

In the case of the 42 day work period of the Inuit employed at the Strathcona mine construction project, the data are even more clear. Foremen reported that native workers, like white workers on such schedules, tend to become irritable, and to slack off in their work performances during the last week of their 42 day work period.

The interviews with the Igloolik workers showed that they expressed a favorable attitude toward this work opportunity. However their questionnaire returns also show more indications of the difficulties of prolonged separation of men from their families, than do the returns from any other sample we have studied. This is seen in their statements about missing their families, worrying about their welfare, feeling their loved ones reactions to this separation quite keenly, and being bothered by this awareness. For both husbands and wives it is seen in statements expressing the hope that the families can relocate to the work site. It is also seen in their dissatisfaction, expressed more frequently than by those in any other worker

sample, with leisure time opportunities at Strathcona Sound, despite the facts that it is the best equipped of any of those included in this study. The Arctic Bay men made no such complaint. It is seen in the married mens' hopes that their families can relocate to the work site.

Accordingly we must conclude that the 40 day work period does take distinct toll of the native workers who have experienced it.

Effects of Rotation Work for Workers' Wives. The conclusion with respect to the effects of rotation work for the workers' wives, at least for work periods of seven to 20 days duration, are the same as for the workers. There is no doubt that most find the experience of separation from their husbands difficult, in terms of at least some loneliness and worry. (There are indications that a few like the experience as well.) However virtually all of the women say they would rather have their husbands' working, than not working, and most say that if given the choice, they would rather have him working a longer work shift than his current one. They also say they want him to have the same employment the following year, and hope that he will work "as long as possible".

The only noteworthy contra-indication in the data that we have assembled has to do with the availability of game meat to the workers' families, the most important component of the diet at Coppermine, Arctic Bay, Pond Inlet, and Igloolik. In each of these settlements, large minorities of wives reported that they had had less "country meat" to feed their families than



before their husbands accepted rotation employment. The significance of these statements is hard to assess. White informants in Coppermine and Arctic Bay tell us that meat is no less abundant than prior to the availability of employment. Indeed in some cases they assert that it is in fact more abundant, because of the increased number of skidoos in the community, permitting more people to hunt more efficiently, in terms of travel time. Where game tends to be scarce in winter anyway, it may be that less abundance among workers' families does occur, because weather conditions or bad luck may prevent a man from bringing in meat during his long break at home. On the other hand, the report of less adequate meat supplies may be merely an expression of wives' ambivalence toward their husbands' work-imposed absences.

We must conclude, but tentatively, however, that rotation work employment probably does result in some reduction in the amount of meat available to the worker's families. Whether it results in actual shortages of game meat or not, could only be answered by research focussing specifically on the issue. In the meantime, a development which is apparently emerging in Pond Inlet, whereby the men in the community who are not working at wage employment are beginning to sell game meat to the families of workers, is a desirable and logical resolution to the difficulty. It may simply be a fact that rotation employment, in some settlements, and/or during certain seasons of the year, is incompatible with being able to provide adequate meat supplies to the family. The provision of adequate community freezer

facilities in such settlements, and/or facilitation of the exchange of meat and money between hunters and workers, by the Co-op store, as has happened in Pelly Bay, for example, are easy and obvious solutions to this problem of meat supplies among workers' families. We re-emphasize, however, that more work needs to be done in this area to resolve the uncertainties and ambiguities.

Unfortunately, no data are available for the wives of men working 30 day work periods. Thus we do not know what particular difficulties they may experience, and what the emotional costs for them may be, if any, of rotation cycles of this length.

The situation with respect to the effects of a 42 day work period is somewhat different. Here the wives appear to stoically accept the long periods of loneliness which are their lot without complaint, but a majority of them do report worrying about the welfare of their husbands. Further, they are unique in reporting that they experienced financial difficulties while their husbands were away, a possibility that increases in probability as the length of work period increases. They also reported experiencing more shortages of meat than any other sample for which we have data. Many of them expressed the hope that they and their children might relocate to the mine site.

Accordingly, though the wives clearly express their willingness to continue to endure these costs which the 42 day work period imposes, we must conclude that such a long period takes a distinct toll of the wives and families of the native

workers employed under this condition.

Effects of Rotation Work on Workers' Children. None of the interview data which we have examined from children whose fathers were employed for work periods of up to 20 days gave any indication of serious consequences for the children of such separation from their fathers. Typically, they report that they miss their fathers while he is away, but they enjoy the material goods that his income provides. All but a few express the wish that he will continue working, even though it necessitates the separation, so that they can continue to enjoy the goods.

This is basically what we would expect from children in this situation. Children are realists above all else: they adapt to the situation in which they find themselves, more quickly and more easily, typically, than do adults.

The data on the incidence of respiratory infections among pre-school children bears out this same conclusion. The incidence rate was used as an index of parental neglect of children, and pre-schoolers would be the most vulnerable to such neglect, if it were happening, of any age group. The data which we have examined show absolutely no indications of an increase in indications of neglect, which might result from lassitude in the mother during her husband's work absences, or from alcoholic binges following his return.

We do not have sufficient data on children's responses to the longer 30 or 42 day absences of their fathers to warrant drawing any conclusions based on that source. However the fact that many of the wives of these workers reported financial diffi-

culties, reduced availability of meat, and difficulties in handling their children does provide rather clear indication of adverse effects for this very long work period on the children of the workers. These indications were sufficiently numerous that we must conclude that such a long work period may take a distinct toll of the children of the workers employed under this condition.

Effects on the Workers' Home Communities. Communities might be ill affected by employment of substantial numbers of men away from the settlement through loss of leadership and man-power needed to keep the community functioning smoothly, or through social disorganization resulting from the breakdown of social controls precipitated by disruption of established patterns and routines. We have data on the former only for Coppermine and Arctic Bay. For Coppermine, we have information from interviews with members of the Settlement Council and with informed whites who were long term residents of the settlement. For Arctic Bay we have information only from the latter source.

Both of these communities have experienced the absence of a very high proportion of the male labor force, up to one-third or more at a time, on rotation employment. In neither case did we encounter anyone who felt that the ongoing life, or the smooth functioning of the community had suffered from loss of leadership or loss of manpower during the employment period. In Coppermine there had been some fearful anticipation that such ill-effects might be felt, but no one reported to us that they had materialized.



The picture with respect to community disorganization is somewhat more complex, when liquor consumption, drunken woundings, and convictions in the Magistrate's Court are used as indices of community disorganization. Our data for Coppermine, and less clearly for Pond Inlet, show that the early consequence of the sudden onset of an employment program involving a substantial portion of the male labor force was a significant increase in indications of community disorganization. However the data suggest that these two communities adapted very rapidly to these changed conditions, with the result that the disorganization indicators fell rather rapidly to near pre-employment levels after about three years.

In the case of Arctic Bay, the data fail to show any indications of community disorganization resulting from the very high levels of employment found in that community as a result of the availability of two attractive employment opportunities.

Unfortunately we do not have adequate information on the possible consequences of the 30 day work period on the upper Mackenzie River settlements, or of the 42 day work period on the settlement of Igloolik, to permit discussion of this topic. The fact that a very much smaller proportion of the Igloolik male work force is involved in such employment would tend to mitigate the community consequences considerably.

The pattern with respect to community disorganization which we have found cannot be ascribed to rotation employment; any comparable sudden increase in well-paying employment of settlement residents would have produced exactly the same con-

sequences, we are sure. The only possible distinctive consequences of rotational employment would result from the build-up of stresses as a result of the absence of men from wives and families, and our data do not show any indications which should be interpreted as stress reactions.

Thus we conclude, on the basis of our limited data at this point, that there are no indications of adverse community effects in the settlements for which we have data, which are attributable to rotation work employment.

We must reiterate that we have no data on which to base an assessment of the effects of a 30-7 day or a 42-14 day rotation cycle on the communities from which the workers come.

#### Recommendations

On the basis of the information we have collected and the data analyses which we have performed, the following recommendations with respect to rotation work employment are made.

1. Rotation work employment should be encouraged and facilitated.
2. The duration of the work period should normally be restricted to 20, or to a maximum of 30 days in communities where other employment is available to native workers. We have noted earlier that the evidence on which this recommendation is based is tenuous, but there are sufficient indications of the social costs of longer work periods that we believe it justified.
3. In so far as possible, assignment to work periods last-

ing 30 days or more should be restricted to single men. This is obviously an awkward, and probably unenforceable recommendation to make, since it proposes discrimination against married men for certain kinds of employment. However it could probably be implemented, at least to a degree, as a result of careful and sensitive negotiation with the company which was seeking workers, and with the Settlement Councils of the employees' communities. The final decision should of course be left up to these two, but it might be possible to make arrangements for the married men to be employed at certain kinds of jobs for shorter work periods, and for single men to be employed at other jobs, for longer work periods.

4. In so far as possible, the men on the same rotation shift should be members of the same area or dialect sub-group, in order to minimize the feelings of isolation and estrangement that they would otherwise suffer more severely. Like the previous recommendation, this one is again awkward, and probably unenforceable, but it could also probably be achieved to some degree through appropriate negotiations with the hiring company and the employee communities.

5. Where possible, unskilled and semi-skilled rotation workers should be hired out of a work pool, so that substitutions can easily be made without loss of work efficiency when workers want or need to remain at home longer than the routine long break would allow. Achievement of this would involve adequate briefing of, and negotiating with the hiring companies. It would also involve more careful screening of native workers for assign-

ment to particular jobs than has typically been the case to date. That is, some kinds of work, where team work is an important aspect of the job as on drilling crews, cannot be adapted to accept whatever worker happens to come along out of the work pool. Lest there develop blanket discrimination against native workers for this type of employment, what is needed is to try to select men for such jobs who could be counted on not to miss work shifts. As the native population becomes more generally acculturated and exposed to white Canadian patterns, and as those with extensive wage work experience increase in number, the ease of identifying individual native workers who can perform with satisfactory dependability in such positions may be expected to increase.

6. Much more care should be exercised in carefully attempting to match the interests (including interests in spending time at home or hunting) and abilities of the worker with the opportunities and demands of the job for which he is employed. Studies show that satisfaction with work activity is one of the most important influences on ability to withstand the stresses of prolonged isolation in unfamiliar environments. The tendency to stereotype all "native workers" to lump them into a single common labor pool, rather than to group them into a number of more specialized worker categories or pools, mitigates strongly against this recommendation. No doubt it would be virtually impossible to formally enforce this recommendation, and to some extent it works against recommendations number 4 and 5 above. However it can certainly be achieved to a greater extent than it



is to date, and as more and more young people come onto the labor market with better training and more specialized skills, and as more acquire some specialized work experience, it will become necessary. It will clearly be in line with companies interests, in terms of increasing the efficient utilization of the northern based work force. One important requisite will be for expeditors in the settlements to have much more detailed knowledge of the requirements of positions for which they are choosing men from the labor pool.

7. In so far as possible the duration of the work period should be varied, inversely with the distance of the work site from the workers' homes. Our data from Strathcona Sound show that the proximity of the work site to the home settlement made the 42 day rotation period less stressful for the Arctic Bay than for the Igloolik workers. Once again, although this recommendations raises difficult "equity" issues, the bases for the recommendation are sound, and some flexibility compatible with this recommendation could probably be achieved through negotiation.

8. Where considerations of work schedules and proximity would permit, workers should be permitted to return home for one or two days on the weekend, as in the case of the men from Arctic Bay working at Strathcona Sound. The main point to be emphasized here is that the thinking about rotation employment in the Arctic was first shaped by the requirements of employment of white workers from the south, working under such conditions. However the distances between home and work, and the nature of

workers obligations and involvements with family and community are quite different for northern natives, as compared with southern white workers. Thus it is obvious that arrangements which are optimal for southern whites are not necessarily optimal for northern natives. This may importantly affect company interests -- worker efficiency and the costs of worker rotation. Accordingly what we are suggesting is further extension of the pattern which Strathcona Mineral Services has evolved for the workers from Arctic Bay, where native workers living at the work site may enjoy weekend "short breaks" as well as periodic "long breaks" at home.

9. Workers should be adequately briefed on the full range of conditions and circumstances at the work site where they are considering employment, including the physical surroundings, the living arrangements, the work circumstances, demands and facilities, and the arrangements which exist for coping with emergencies, including emergencies at the worker's home which might necessitate his early return. It is not enough simply to leave these things undone, for the worker to find out during the course of his first work period. The literature shows that when a person's reaction to approaching an isolation experience involves worry and anxiety, these feelings do not dispell completely. They persist in reduced form, to color his reactions to all aspects of the isolation experience. One important consequence of this is that he is less able to cope adequately with increased stress on the job, whatever its source, when it occurs.

10. Explicit arrangements should be worked out, so that

all workers hired for rotation employment may easily be able to communicate with their families at home, by telephone or by radio telephone. Workers and their families should know of these arrangements and have easy access to them. The importance of such arrangements for coping with the stress of isolation experience is well documented in the literature. It would be easy and justifiable for the company to pay the cost of such calls (say of one 10 minute call home per week per man) in the same way that it pays the costs of transportation and accommodation for its employees. It is probable that the increased morale and efficiency of workers which would result would more than defray the added expenses. In any case, such calls would minimize some of the social costs of rotation employment, and it must be argued that the companies which generate such costs should be expected to do what they reasonably can to minimize the costs.

11. Where possible, arrangements should be made to serve some native foods, native style, at least occasionally, in work camp mess halls. This might include bannock, fish, caribou or reindeer meat, seal meat, arctic char, etc. As in the case of rotation arrangements, the menus which are served in the mess halls at work camps have been drawn up solely with the appetites of white workers in mind, and the investment in food pleasing to southern white palates is frequently quite high.

Working out the logistics to obtain some of these foods might be difficult in some cases. In other cases it would involve only making arrangements to purchase meat from the Co-op in the home community from which workers were hired, and transporting

it on the same flights which rotate the workers. In any case the improvements in morale, and in felt familiarity with the work site would justify making such efforts, after it had been ascertained that workers would appreciate them. Needless to say, occasional provision of alternate dishes of this kind would not affect the white workers who would have the regular menu available.

12. Payment of wages should be sufficiently frequent to insure that the families of workers will not experience financial privation, and further (if possible) a portion of the worker's pay cheque should be sent directly to his family to insure that it is adequately provided for during his absence. The importance of these recommendations is seen in the fact that numbers of wives of the Igloolik workers said they had experienced financial difficulties during their husbands' absences, and that some expressed the wish that the gambling at Strathcona Sound could be prevented. Several made remarks suggesting that their husbands gave them very little money to provide for the needs of the family.



## CHAPTER III

### REVIEW OF PUBLISHED RESEARCH REPORTS RELATING TO ROTATION WORK EMPLOYMENT

Library sources were searched with respect to five different areas relevant to the topic under study: studies of employee reactions to rotation employment in various parts of the world, studies of human reactions to isolation and/or confinement studies of human reactions to harsh or unfamiliar environments, ethnographic research on northern native peoples, and psychiatric research on northern native peoples.

#### Studies of Employee Reactions to Rotation Employment

#### Published Descriptions and Evaluations of Work Rotation Employment Schemes

A careful search of the extensive collection of materials in the Library of the University of Alberta, relating to industrial relations, work organization, organization of extractive industries, industrial development of under-developed countries, and industrial sociology and psychology yielded only one citation relevant to the topic of this report.

The source which was found was Lloyd's (1974) Report on

Review of Northern Native Relocation Programs, a survey of the published and unpublished documentary materials made for the Environmental-Social Committee Task Force on Northern Oil Development of the Department of Indian Affairs and Northern Development. The purpose of this study was to identify "all past programs specifically intended to place northern residents in employment, particularly those programs requiring relocation of potential employees." (Lloyd, 1974, p. 2.)

Lloyd searched library sources for published material, file indexes in the Registry of the Department of Indian Affairs and Northern Development, and interviewed people involved in ongoing programs, people who had been involved in previous programs, and people conducting research of a similar nature in Saskatoon, Calgary, Edmonton, Yellowknife, and Fort Simpson in his efforts to obtain a comprehensive listing of these programs. His efforts yielded a list of 25 programs, but 13 of them were eliminated because of lack of a program to date, insufficient experience to date, or insufficient data on hand. Of the remaining 12, nine were essentially exclusively relocation projects, though his search did cover rotation work programs as well. Only three of the programs he identified were rotation work programs for which sufficient information was available to be written up in Lloyd's survey. These three were the Pan Arctic Oils program for employing Inuit men from two Baffin Island communities in the hydrocarbon exploration program in the High Arctic, the Gulf Oil Canada program for employing Inuit men from Coppermine in the Northwest Territories in Gulf's hydrocarbon exploration program

in the Mackenzie Delta, and the Hire North heavy duty equipment operator's training program for native people of the Northwest Territories, based at a camp on the Mackenzie Highway north of Fort Simpson. All three of these programs are described in detail, using data collected by this researcher, later in the present report.

In an attempt to insure that there had been no oversights in our library search procedures, we consulted with three experts in the relevant areas who are on the Staff of the Faculty of Business Administration and Commerce at the University of Alberta. None of the three could recall ever having read, or seen a reference to a published study bearing on work rotation employment. However, they did suggest some additional leads in the library which were all followed up, but to no avail. Accordingly this aspect of the research was terminated.

#### Studies of Human Reactions to Isolation and/or Confinement

The published research under this topic relate to two major traditions. The first includes studies of reactions to isolation, and consists of a variety of field studies of military personnel in remote, isolated northern sites, and of scientific and technical support staff at isolated research sites in Antarctica. The second consists of a variety of laboratory studies of the effects of confinement and sensory deprivation.

Unfortunately, none of the studies surveyed in either of

the two literatures which were reviewed gave major attention to the variable which is of central interest in this report: the consequences of varying the interval during which subjects studied were exposed to the isolation or confinement situation. However, other material is of interest, and is summarized below.

### Studies of Reactions to Isolation

Sells (1973) identifies ten situational dimensions that are believed to have significant implications for behavior in isolation. He reports that there is some experimental evidence, and more extensive field observation evidence in support of the relationships reported below.

1. Voluntary vs. Involuntary. Tolerance of discomfort, deprivation, and of danger are increased when the expected reward is high in relation to psychological costs. Although perhaps not invariable, it is assumed that the reward-cost ratio is highly favorable for voluntary participants and unfavorable for involuntary participants. Voluntary participation is assumed to represent self-initiated inclusion, open choice among equally available alternatives, and informed consent without direct or indirect coercion.

2. Instrumental vs. Obstructive. Tolerance of isolation is believed to be greater when the isolation is instrumental to an important goal (as in space missions) and reduced when it obstructs goal attainment (as in most involuntary situations). Involuntary isolation, such as the assignment of military personnel to remote stations, is better endured when the mission is accepted as plausible, important, and necessary.

3. Planned vs. Unplanned. When isolation is entered knowledgeably, with purposeful and productive planning, preparation, training, and equipment, the likelihood of successful outcomes is increased in comparison with unplanned, unprepared, accidental experiences.



4. Duration. Isolation may extend from brief exposures, as in many experiments, to extremely long periods, as in certain classical cases of imprisonment. The stress of isolation is believed to increase as a function of duration.

5. Individual vs. Group. As noted earlier, the evidence from extensive field observations indicates that individuals tolerate isolation and other stresses better as members of organized groups than alone. The influence of the group is undoubtedly mediated by group structure and dynamics, including acceptance of role expectations and requirements, reciprocal role relations, leadership, discipline, and mutual support characteristic of military units, space and ship crews, and organized expeditions. The disorganization and panic often observed in civilian disasters reflects the reactions of the unorganized collective aggregation.

6. Space Restriction. Human space requirements are not absolute. Norms for individual space have increased historically and are known to vary culturally as a function of industrialization and social affluence. A characteristic human tendency has been for luxuries to become necessities, and this has been true in the case of normal and minimum standards for individual space. In addition to this cultural relativity, many personal and situational factors affect space requirements (Hall, 1966; Sommer, 1969; Trego and McGaffey, 1969). A particularly interesting interaction exists between this factor and the preceding one. In group situations, the significant aspects of space restriction include, in proportion to the degree of crowding, loss of privacy, enforced intimacy, restraint, and restriction of movement. Restraint and restriction of movement also occur in the alone situation. Although space requirements vary, crowding and confinement to close quarters are significant sources of stress, and they increase as a function of duration.

7. Threat. Subjectively, isolation may involve varying degrees of threat derived from objective assessment of known dangers, as well as fear of the unknown and problems related to separation. In space and undersea operations, the capsule exists as a safe shelter in a hostile environment and is protective as long as it functions adequately, although at the same time its confined internal accommodations may be a source of stress. Threat related to separation will reflect individual differences in personality, status, and personal situations.

8. Social Conditions. Important considerations here are the number and nature of the persons present, communica-

tions, interpersonal, and role relations. The pattern of social conditions may contribute to the support or degradation of the adjustive capabilities of the individual or individuals involved.

9. Support Conditions. Variations of support include supplies, equipment, and other logistic aspects that may determine how long the party can hold out under existent conditions of isolation.

10. Environmental Variability. Variability of the isolated environment is related to the phenomenon of sensory deprivation, and affects level of arousal and compensatory functions when sensory input variation is minimal, producing monotony, boredom, and even hallucinatory experiences in rare cases, as discussed by Dr. Zubek (1973). Even when monotony is only moderate, however, social and behavioral affects may be heightened by the combined effects of other stresses.

Certain of these dimensions are relevant to an analysis of the reactions of native northerners to rotation employment, since such employment always involves isolation of the worker from his home community, and frequently involves confinement to a small complex (well drilling rig) or a small area. Thus the third dimension "planned or unplanned" is relevant in terms of how clearly the new worker understands the rotation conditions when he first enters employment. In circumstances where the native worker is older, and has little or no comprehension of English, it is possible that he might find himself in a situation of "unplanned" isolation, especially given the reluctance of native people to ask questions or otherwise indicate that they did not understand. The relevance of this dimension is thus to emphasize the importance of adequately briefing the new and especially the unacculturated worker on the conditions he will face in a particular work rotation assignment.

The fourth dimension, duration, is of course recognized

as a critically important variable.

The fifth dimension, individual vs. group, points to the importance of assigning, at a minimum several native workers to the same rotation work site. Even younger natives, whose English mastery is quite adequate, may feel quite isolated when attached to an otherwise all white work crew on a rotation work schedule. The isolation felt by older men knowing little or no English will of course be very much more extreme. Thus it would seem important to insure that native northerners will be assigned with several fellow natives to rotational work sites.

The sixth dimension, space restriction is, we suspect, a more important consideration with natives than with whites. This would be particularly true of natives from the less acculturated settlements of the middle Mackenzie River or of the Central and Eastern Arctic. The greater usage of the "outdoors" in these areas, we suspect, would make the space restrictions of many work rotation situations seem more onerous to them than they would seem to whites who typically live more of their lives in enclosed spaces.

The seventh dimension, threat, again is relevant in the context of how acculturated, and how well briefed, the native worker may be. The danger, of course, is that features of the work environment which are typically well known to whites may not be explained, or at least adequately explained, to native workers. This potential is exacerbated by the aforementioned reluctance of natives to ask questions, and the result can easily be that situations which are not perceived as threatening by whites may



be so perceived by natives, because of their lack of comprehension. The result would be to make the isolation of the work rotation experience that much more difficult to cope with for such natives.

The eighth dimension, relating to social conditions including communications, interpersonal and role relations, points both to the need to assign several natives to the same work site, and to the importance of adequate briefing of white and native personnel in such a way as to facilitate their communication, and their ease of association with one another.

The ninth dimension, supplies, equipment, food, etc. does not need emphasis given the fact that rotation work employers typically spend generously to ensure good variety, quality and quantity of food, etc.

To this list Rioch (1961) adds yet another which is particularly relevant to the situation of native workers, good and easy communication with loved ones in the home community. He points out that the concern of personnel posted to isolated sites is that they will be forgotten by those at home, a concern that is increased when the location is felt to be threatening. Certain kinds of native workers must be particularly vulnerable to this kind of concern, we suspect.

In 1974, Sullins and Rogers reported the results of a series of studies of the "Relative Desirability of Leisure Activities and Work Parameters in a Simulation of Isolated Work Situations". Summarizing the current relevant literature he reports the following "reasonably confident conclusions about



isolation situations which include meaningful work":

1. Leisure facilities and provisions, when provided, are used. There are suggestions of a relatively stable hierarchy of value among various types of leisure provisions.

2. Certain characteristics of the available food, beyond its simple edibility and nutritional adequacy, seem very important. These characteristics, though not well defined, probably include appropriateness, variety, and freedom of choice.

3. Some facilities for ordinary living activities, such as sleep, hygiene, exercise, and housekeeping, appear to have a detrimental effect if they are inadequate.

4. Procedural variables such as schedules, deadlines, operating procedures, instructions, etc., may vary in adequacy and rigidity, and such variations have a notable effect on subjects or crewmen.

5. Attempts to have subjects or crewmen participate in intrusive measures of their activities, performance, or state are met with resentment and singular lack of effectiveness. Currently there are few relevant, non-obstrusive measures available.

6. There is frequently a notable discrepancy between the things subjects or crewmen say are important and the degree of importance inferred from more objective measures, such as extent of actual use. Some question is thus raised about the value of subjective reports. (pp. 3, 4.)

Sullins' own work involved a number of studies in which a single subject was isolated for five continuous days, groups

of three people were isolated for seven days, and groups of four people were isolated for nine days. In each case the experiment included use of meaningful work as a major activity for the subjects, for which they were "paid", and the availability of a very large variety of leisure/living work-tool options for which they had to pay in the "coin" obtained from working. In view of the fact that all of the activities (except work) in which a subject might engage, including availability of light, use of the lavatory and food eaten, as well as special foods chosen, had to be paid for, and most were paid for at a constant hourly rate, the expenditure patterns of the subjects gave relevant, quantifiable evidence of their preferences in regard to work (they could work as long or as short as they wanted to) and leisure activities, in a variety of decor contexts (for which they had to pay). Analysis of these data resulted in the following conclusions:

1. The most general finding was that subjects were almost universally very satisfied with their stay in isolation, and this was interpreted as supporting the findings of other studies that the nature of the work available is one of the most important parameters in isolation situations. Where work is adequate and satisfactory, most other parameters of the setting have less effect on overall performance and satisfaction. Only where work is less adequate do other parameters become more critical.

2. The quality and choice of food were also found to be of considerable importance to the subjects. When required, additional work was done to enhance the characteristics of food.

Considerable effort was expended in the preparation of food, and it was frequently the subject of much discussion, and some complaining. The subjects frequently arranged to eat in unnecessarily enriched environmental settings: tablecloths, carefully set tables -- figuratively with "candlelight and wine". Decor and furnishings appeared to be far more important relative to eating than at any other time. Food was judged to be a major compensation for the work and sacrifices undertaken as part of the experiment.

3. In contrast to food, which had a positive value, hygiene facilities appeared to have a negative value. Very good facilities were found to be detrimental in terms of total effectiveness and satisfaction.

4. The data relevant to the "rental" of furnishings and decor materials by the experimental subjects suggest that beyond those amenities required for basic comfort, these variables are not very important, at least where work parameters are satisfactory. The findings with respect to use of leisure time were virtually identical with findings from "sealab" (undersea research station isolation studies): listening to music and watching movies or television were about equally popular (about 7 percent of total time), followed by reading (4 percent) and other activities (2.5) percent.

Summary. On the basis of the sources which were examined, the following conditions appear to be associated with increased ability to tolerate stresses associated with isolation and/or confinement.

1. Voluntary, as contrasted with involuntary isolation or confinement.
2. Isolation which is instrumental toward achievement of an important goal (high earnings, or obtaining important scientific data) as contrasted with isolation which is obstructive of important goals.
3. Shorter duration isolation as contrasted with longer duration isolation.
4. Isolation experienced as a member of a group, as contrasted with solitary isolation.
5. Isolation in adequate, uncrowded physical facilities, as contrasted with isolation in cramped facilities.
6. Isolation when the larger environment is known to be free of unusual threat as contrasted with isolation when the larger environment is perceived as unknowing and threatening.
7. Isolation in contexts where the logistical support (provision of needed goods and services) is known to be adequate, as contrasted with isolation in contexts where logistical support is inadequate or undependable.
8. Isolation in contexts having much environmental variability, as contrasted with environments having little or no environmental variability.
9. Isolation where adequate opportunities for meaningful work exist, as contrasted with isolation where work opportunities are inadequate, and/or meaningless.
10. Isolation when the quality, choice, and quantity of food is good, as contrasted with situations where the quality



and/or quantity of food is sub-standard to that normally known.

### Studies of Prolonged Exposure to Harsh or Unfamiliar Surroundings

Many studies of this type are to be found in the literature. Clearly they have some relevance to the current study, because the work situation in which native men are employed in rotation work in the north is frequently unfamiliar, and may strike the worker as "harsh" from various perspectives -- the physical environment, the social environment, the hours of scheduling constraints, the climate, in terms of unusual cold or darkness (dark time) conditions. By the same token, however, these are somewhat marginal issues, because many aspects of such rotation employment which appear harsh to southern white workers only appear minimally so, if at all, to northern natives because of their lifelong exposure to many of these "harsh" conditions. Further, living or food-diet conditions which may seem "average" or even "sub-standard" to southern workers may seem comfortable, and more to northern natives who have frequently been used to more meagre circumstances, and often to the hard spartan simplicities of life in the bush camp or on the trap line in winter.

For these reasons we shall cite the findings from only two of the many papers to be found in the literature. The first, by Gunderson (1973) on "Individual Behavior in Confined or Isolated Groups", reports on research on the adaptation of civilian scientific, and U.S. Navy support personnel stationed for a year

at various small research sites in Antarctica during the years 1956 through 1968.

The living conditions at these sites can only be described as trying, if not harsh:

Because of the extreme cold and required heavy clothing, outdoor work is slow and difficult. Equipment breakdowns are frequent, and spare parts may not be available. Water is carefully rationed, and generally one shower each week or 10 days is permitted. Clothing is washed infrequently. Water pipes and drains often freeze. Crowded living and working spaces make privacy difficult. Ham radio contacts with families and loved ones may be disrupted by communications blackouts for days or even weeks at a time. In short, the direct and indirect restrictions imposed by the harsh environment tend to make even simple daily tasks and activities slow, uncertain, and generally difficult. (p. 150.)

It was planned to evaluate the behavior of personnel stationed at these sites in terms of task performance, emotional health, and social compatibility or liking. The first proved impossible to measure precisely because the personnel were too diverse in their work activities to permit the establishment of norms. Cases of psychosis or extreme neurosis were very rare, so that severe psychopathology did not provide a meaningful criterion for differentiating individuals on emotional behavior. However, differentiation was possible in terms of: incidents of interpersonal friction, many triggered by trivial events of emotional regression suggested by occasional temperamental displays, and the general lethargy and malaise which tended to appear after several months of winter confinement. Rather wide variations were found in popularity or likability, and this variable was found to correlate highly with performance evaluations (p. 150).

Subsequent research further refined these three aspects

of adaptation and a factor analysis of a number of supervisor and peer ratings resulted in identification of three salient dimensions: emotional control and acceptance of authority, industriousness and achievement motivation, and likability and friendship compatibility. Scores derived from averaging rankings (converted to T scores) of the items in each of these three clusters were related to a composite general criterion representing the most meaningful general index of performance, by means of multiple regression analysis. The multiple correlation between the three behavior clusters and the general criterion was .89, a very strong relationship. Unfortunately, the strength of the independent relationship between each of the three predictive factors and the general performance criterion is not reported, other than to say that "by removing the social compatibility cluster the value of R was reduced to .75" (pp. 151-52). A later study of Navy personnel using these same variables found that the rank order of importance of these behavior traits, as indicated by the magnitude of their correlations with the overall criterion was (1) emotional stability, (2) task performance, and (3) social compatibility (p. 154).

The relevance of this series of studies is in documenting precisely what would have confidently been expected on common sense grounds: (1) prolonged confinement to a harsh or unfamiliar work setting is productive of symptoms of emotional disturbance even in samples carefully screened for their ability to cope with this kind of stress, and (2) emotional stability, task performance ability, and social compatibility are the best predic-

tors of ability to cope effectively in this kind of situation, a situation which may be analogous in certain respects to certain rotation work situations which may be encountered.

Haythorn (1973) has provided a comprehensive review of the results of laboratory studies of isolation on human volunteer subjects. He identifies four main sources of stress in isolation experience: stimulus reduction, confinement, isolation and interpersonal stress.

In respect to stimulus reduction, comparison of isolated dyads confined to a small room for 10 days, with control groups performing similar tasks but without confinement, produced more reported subjective stress and emotional symptomatology in the experimental than in the control groups. The reported symptomatology and stress was similar to, but less extreme, than that reported by individuals in some sensory deprivation experiments, i.e., confinement for up to seven days in complete darkness and silence. The relevant conclusion is that sensorial enrichment of isolation environments should result in less subjective stress and emotional symptomatology because the sensory deprivation potential latent in that isolation is counteracted (p. 221).

We shall not review the findings with respect to confinement (in a small space, as in a space capsule) because these seem quite irrelevant to most rotation work contexts.

Studies of the effects of social isolation show that both the duration of the isolation (four days vs. 20 days) and the presence or absence of occasional contact with someone outside the experimental isolation group are associated with subjective



reports of severe stress, generally "expectations of a long mission", no contacts with "outside" people, and the opportunity for privacy within the experimental context were associated with the highest stress (and a 100 percent rate of aborting the experiment) (p. 225). Yet another study of dyads in an isolation experiment demonstrated that those dyads composed of hypothetically compatible pairs (on the basis of their performance on a test of social needs) reported less stress and emotional symptomatology and showed less tendency to establish territoriality and to withdraw from each other socially, than did the hypothetically incompatible pairs (p. 226). One relevant implication of this finding would appear to be that the ability of northern natives to successfully cope with the stresses of rotation employment would be improved by having several native workers assigned to the same work site and rotation period. In so far as rapid social change in the north since World War Two has produced generational changes in personality, interests, etc. among northern natives it would be desirable that these native co-workers be age peers.

The literature which Haythorn reviews shows clearly that interpersonal adaptation is especially troublesome in isolated groups, and indeed he maintains that interpersonal stress constitutes one of the principle sources of trouble in isolation and confinement situations (1970). As noted earlier, hypothetically incompatible pairs of men in the study mentioned above reported more subjective stress and emotional symptomatology, established more clear-cut territorial behavior and withdrew from

each other socially, and these effects were significant when other experimental variables, noted earlier, were controlled. It was found further, that these results were most marked in the case of men with high dominance needs. Such a combination is relatively unlikely with native northerners, but generally, the importance of similarity in native co-workers appears to be reinforced by these findings (pp. 226-27).

Summary. The following findings were reported in the studies of human reactions to isolation and to harsh or unfamiliar environments, which are relevant to the purposes of this study.

1. Careful briefing of personnel concerning the characteristics of the harsh or unfamiliar situation that they will be entering improves their ability to cope well in that situation.

2. Good and frequent communication of those in isolation with those "outside" improves their ability to cope with the isolation experience.

3. Lack of privacy in lengthy isolation experimental groups is associated with the appearance of fewer anxiety symptoms than is privacy.

4. Longer isolation experiences are associated with the appearance of more anxiety symptoms than are shorter isolation experiences.

5. Similar experimental dyads experiencing isolation together exhibit fewer stress symptoms than do dissimilar dyads in isolation.

6. Satisfaction with the kind of work to be performed is

highly associated with lack of indications of discontent and stress in experimentally isolated subjects.

7. Quality of food assumes great significance to experimentally isolated subjects, apparently in providing feelings of compensation for the privations or discomforts experienced in the isolation situation.

#### Published Literature on the Inuit

Three broad categories of studies on northern native people are of general interest in the context of this report: economic opportunity studies, ethnographic studies, especially of native responses to wage employment and town living, and psychiatric studies of the mental health of northern natives.

Economic Opportunity Studies. In this category are included a sizable number of economic surveys of various parts of the Northwest Territories which were commissioned by the Northern Science Research Centre (later, Group) of the Department of Indian Affairs and Northern Development, and some other more general discussions. The general conclusion of many of these studies, which dealt primarily with Inuit areas and only infrequently with Indian areas it should be noted, was quite pessimistic concerning the prospects of native people to achieve even minimum self sufficiency, given the cultural, economic, and environmental circumstances in which they now find themselves. The result is that several writers have concluded their discussion by specifically and seriously recommending that serious considera-

tion be given to relocating the total Inuit population in some economically favorable context in the south. Specifically such a recommendation was made by Usher (1965) with respect to the "Coppermine Holman Region" and by so well renowned and respected an Eskimologist as Jenness (1964) with respect to all of the Inuit occupied areas of the Canadian arctic, to mention but two. The point of citing these conclusions is of course not to imply that they should be implemented, but to demonstrate that the economic prospects of northern natives have been viewed, for much of the last 20 years and more, as so serious that such drastic steps as massive relocation were not only justified but required. In the context of this kind of background, the prospect of rotation employment of perhaps a sizable proportion of the northern native population, as an alternative to massive southward relocation, must be seen as not only acceptable, but attractive.

We should add that such rotation employment would be quite analogous to the "rotation employment" on the trap line which has been known by very many of the mature native men in the Territories during the past 20 years and more. These are the conditions under which a majority of the men living in Sachs Harbour and in Paulatuk, now make their living, as well as in many other settlements in the Territories where employment opportunities are scarce. Further, such work routines are exactly analogous to the way of life of the whalers and more recently of the fishermen of the Eastern seaboard, except that the living conditions are typically much more comfortable in the Arctic, as



contrasted with fishing rotation employment.

Ethnographic Studies. The baseline, against which all more recent ethnographic studies of native responses to recent employment and town living must be viewed, is the so-called Fur and Mission Era when all of the natives of what are now the Territories gained their livelihood off the land, and their income from trapping. This way of life was of course associated with a long list of traditional activities, including working with furs, trapping, fishing, in some areas whaling, and with profound knowledge of the lore of the land, of weather, ice and snow conditions, etc. Evidence began to be reported about 1963 of massive disinterest, among native young people from the more accultured locations, in these traditional activities. Clairmont (1963) for example, carefully documents the complete disinterest of young people of both sexes in a variety of activities having traditional connotations: skin garment sewing (among women), trapping and even shooting muskrats, fishing and whaling at fishing and whaling camps, etc. Van Stone (1963) reported that trappers in the less acculturated area around Snowdrift were similar in their increasingly strong preference of wage work of any kind over trapping.

A number of studies made about the same time have documented the generally good adaptations which northerners, and particularly the Inuit, have made to wage employment. Two merit brief attention in passing before we turn to several more explicitly relevant studies.

The Honigmans, writing in 1963, found that many Eskimos

had made successful adjustment to wage employment, and that dependable work activity consistently increased with age and family responsibility (1965, p. 73). Clairmont found the same thing in Alkavik (1963, p. 25). In their 1970 publication reporting their study of Inuvik, the Honigmans do not have an extensive discussion of factors associated with successful economic adaptation. However they do report that 75 percent of the 193 native families for whom they had data had made satisfactory economic adjustments. They note further that a higher proportion of Inuit than of Indian families achieved such adjustment (1970, p. 760).

The most relevant studies in the literature, for our purposes are Dailey and Dailey's (1961) and Williamson's (1974) studies of Eskimo employment at Rankin Inlet, Deprez's (1973) study of native employment at the Pine Point Mine, and Forth and Williamson's (no date), Stevenson's (1968) and Lloyd's (1974) publication on Eskimo relocation for industrial employment.

To date, the largest and the best documented relocation employment situation involving Eskimos was that at the Rankin Inlet Nickel Mine, which has been studied by Dailey and Dailey (1961) and Williamson (1974). Williamson's work is the more comprehensive of the two, having been completed well after the closing of the mine in the fall of 1962. By contrast, the Dailey's collected their data toward the end of the first full year of substantial employment of Inuit in the mine, during the summer of 1958. Both of these sources are rather spotty, however.

The Dailey's devote much of the body of their 100 page

report to a standard ethnographic description of the "Eskimo" living at Rankin Inlet during the summer the study was made; less than half relates to the nature of mine employment, and its consequences for the Inuit there. However the report does succeed very well in describing how minimally acculturated the Inuit were at that time, how abjectly poverty stricken (by white standards) was their way of life, and how ill adapted this way of life was to conditions of community existence and industrial employment. Furthermore, they provide an assessment of the impact of employment at the Rankin Inlet Nickle Mine of 80 Eskimo men and women, virtually all of the native families there, on the way of life of these people, and their response to this employment. Although employment at this level had been achieved only nine or 10 months earlier, the Dailey's felt confident in making an initial assessment of the situation: "On the whole, the adjustment the Eskimo has made has been a successful one." (1962, p. 102.)

Williamson's study of Inuit employment at the Rankin Inlet Nickel Mine (1974) is the best general study of Inuit employment in North America to be found in the literature. The survey of the employment of Inuit in the mine is spotty at best, having very little in the way of statistical information. In this respect the Dailey's work is better, at least for the first year. Surprisingly, Williamson's study is especially lacking in information on the background characteristics of the workers. However as an ethnographic study it is much better, and it does contain much useful information relevant to the employment of

large and unselected numbers of Inuit in a modern mining and milling context, and on the consequences of this employment experience.

The quality of this information is vastly enhanced by the facts that Williamson had lived in Rankin Inlet before the opening of the nickel mine, lived there throughout the period that the mine was in operation that he speaks the Inuit language fluently. Thus he was able to establish easy, friendly relations with the mine workers and their families and to monitor, virtually on a day to day basis, the attitudes of workers and families toward mine employment, and the effects that it had on their lives and on the community. In this section we shall present a brief overview of the main aspects of that employment experience.

The work of sinking the mine shaft was first begun in 1953, but it was not until the summer of 1957 that the first shipment of ore concentrate was loaded aboard ship. No Inuit were employed prior to April, 1956, because the management of the mining company was convinced that they would not be satisfactory workers. However in 1956, as a result of the insistence of a man named Easton who served initially as a consultant and was soon appointed Mine Manager, the number of Inuit employed escalated rapidly, from 6 in the spring of that year, to 20 by mid-winter, to over 80 steadily employed by the winter of 1957-58. With another 20 or more men employed on a part-time basis, about 100 Inuit men were thereafter employed at least part-time by the mining company. Thus about 400, out of 500 Inuit in Rankin Inlet at its population peak, were dependent on wage employment from the



mine for their support. This pattern continued until the spring of 1962 when lay-offs began in anticipation of the final closing of the mine which occurred in the fall of 1962 (pp. 92-93).

The mine was slow getting into operation for a number of reasons including, notably, problems in recruiting and holding white employees to work in the harsh climate and isolation of the Rankin Inlet setting. Williamson writes of "the very rapid and expensive turnover of often third-rate white employees brought in at considerable expense from the south." (p. 93). Although he fails to provide figures on the total number of mine employees, it seems apparent that a majority, and perhaps a large majority of the employees in all three divisions of the operation -- Surface, Mill, and Mine, were Inuit throughout the years that the mine was in operation.

Information on the recent place of origin of the Inuit, almost all of whom came to Rankin Inlet in response to the availability of employment, is found in the Dailey's report for the first year of large scale employment of Inuit by the mine. They report that 224 from Chesterfield Inlet, 79 from Eskimo Point, 19 from Repulse Bay, and 11 from Baker Lake (Dailey and Dailey, 1961, p. 20). Unfortunately, however, no information is provided on their previous mode of livelihood. The Dailey's report does provide data on wage rates and incomes received by the Inuit mine employees for March, May, June, and July, and some data on the expenditures and consumption patterns of Inuit families. These illustrate generally how very ill-adapted their life style was to contemporary mining conditions, by white standards. Thus

as many as three families totaling 15 people were found living in the very small, 16 by 32 foot company-built housing (p. 23). The diet staple was bannock (bread) supplemented, when available, with seal or cariboo meat, fish, birds, or bird's eggs (p. 65). In terms of hygiene "most have never actually bathed -- quite a number have lice, and all articles of clothing are badly in need of laundering" which "results in a fairly high incidence of boils". (p. 74).

This report concluded, as of the summer of 1958, that though "on the whole the adjustment the Eskimo has made has been a successful one,... (and) his social system has not been seriously disorganized through his involvement in this wage economy, he has not been permitted full participation in it nor is he being encouraged to do so. He has proven that he can work in this industrial venture. He has not, however, indicated that he has any awareness or self direction nor any desire to plan for the future." (p. 102).

The Inuit were eventually placed at all skill levels, although only one was employed in supervisory position, as "straw boss" of the Surface labor crew. They were employed in the mill as helpers, as filter operators, mill mechanics, and crusher operators, on the Surface as laborers, bulldozer and truck operators, carpenters, electricians' helpers and plumbers. In time, one Inuit man became "the full time Mine plumber, responsible entirely himself, for both construction and maintenance and repair plumbing." (p. 112). In the mine they worked as "deck men", cage-tenders, and mucking-machine operators. The

elite workers in the entire operation were the diamond drillers and the members of the Mine Rescue Crew, and in time six Inuit were trained as diamond drillers, and 12 were given positions on the 16 man Mine Rescue Crew. The range of highly skilled, and very responsible positions that the Inuit came to occupy is a clear indication that the Inuit performed exceptionally well in a very wide range of positions after they became accustomed to the work situation. Perhaps the most eloquent single indication of this is found in the comments of the Territorial Mine Inspector who was charged with inspecting and testing the Mine Rescue Crew at least twice yearly. The training, performance, and testing of Mine Rescue Crews is rigidly controlled by law -- they are required to be able to carry out the most dangerous, skilled, and arduous operations immediately, efficiently, intelligently, and calmly, and to understand the theory of various aspects of mine rescue work, including gases and their detection, first aid, and the use of a variety of specialized equipment. They must attain a high standard when examined by the Inspector. Williamson writes that "On three occasions the Territorial Mine Inspector said to the researcher that the Eskimo of the Rankin Inlet Mine Rescue Crew were among the best dragomen (sic) that he had seen in his long contact with the mining industry." (p. 115).

This high level of performance on the part of the Inuit workers is particularly remarkable in view of their very limited backgrounds. Williamson writes that "All adult Rankin Inlet Eskimos came to the settlement from igloo life...." (p. 64). Although he does not provide specific information on this point

it seems clear that few could speak English, had formal school experience, and that almost all were illiterate in English. At the time of the closing down of the mine Williamson notes that at that time none had had more than five years of wage employment experience, suggesting that virtually none had had such experience prior to going to work for the mine. Many in the Inuit work force had in fact until the mid-1950's been the isolated and unacculturated Cariboo Inuit of the central Keewatin. Between 1956 and 1958, virtually all of these people were driven by hunger and by Government relocation order to settlements on the coast from which many of them moved, or were moved by the Government, to Rankin Inlet. An indication of the powers of adaptation of these people is seen in the example of one of these people, who was described by a Government Welfare Officer as a "hopeless paralytic" in need of "perpetual custodial care". He responded to the new approach of a new Welfare Officer so that within a month "he was found employment with the Mine and held his job without a break until the mine closed down." (p. 97).

Williamson provides considerable background and contextual information which is of interest to this report. He gives a good description of the difficulties which the Inuit suffered at the hands of the whites, the blatant prejudice which was encountered, the loud talk, shouting, haranguing and derision they experienced which, given distinctive aspects of Inuit socialization, is very much more painful for Inuit than for whites (p. 142).

Williamson has an extensive discussion of the clustering and self segregation exhibited by the four major dialect groups



who comprised the bulk of the people who came to Rankin Inlet. These tendencies were apparent in their work assignments, their socializing in the village and the beer hall, and in their children's play groups. These tendencies were so strong, Williamson writes, that it was common for Inuit from two different language groups to be able to relate better to a white man than to each other. His discussion at this point supports and elaborates Scott's discussion (1975) of the importance of factional or sub-group homogeneity in native work crews.

With a minimally acculturated Inuit work force of this sort, who with but few exceptions came directly from an "undisciplined" (in temporal terms) hunting existence, it is interesting to note that while absenteeism and lateness were initially rather difficult problems, in time 75 percent of the Inuit work force achieved a high level of punctuality and regularity (p. 117).

This was not achieved without cost, of course. Williamson writes particularly of the anxieties that the Inuit population acquired in the Rankin Inlet context, with respect to time, money, personal contact and communication with whites ("Almost all Eskimo informants have said to the writer that the only thing an Eskimo knows for sure about white people is that you can never be sure of them." p. 126), future uncertainties, and drinking (pp. 123-129).

In respect to drinking, it is interesting to note that the mine provided a "beer hall" initially for the benefit of its white employees, but Inuit men (though not women) were permitted to patronize it as well. Ineffectual efforts were made to res-

strict consumption to six cans per person per night. Although some of the Inuit did develop habits of inebriation, the number was small. It is noteworthy that "during the six years in which Eskimos were in any large number involved in the mine operation, Eskimos were involved in a total of (only) nine court cases where drinking charges were laid." (p. 127).

Of particular interest to this report is the information Williamson presents which is relevant to the need for work rotation employment, whether the work site is distant from the Inuit settlement or not. Two points are relevant. First, he describes the difficulties early experienced by the Inuit men, particularly those on shift work, who often reported to work ill-nourished -- because they did not know how to put together well-balanced meals from the range of "junk foods" attractively displayed in the store -- and unrested from their over-crowded shacks or small houses, because the others in these houses had no appreciation of the needs of the men for rest. By contrast, the bunkhouse living whites were well fed and rested (p. 142). Secondly, he talks about "psychological and material need to hunt pressing strongly upon most of the Eskimo Mine workers." (p. 115) and notes that most of the Inuit workers "found the enclosed and noisy work-life depressing after a time, and the hunting forays were satisfying, whether materially successful or not." A period in the open was important to many of the men. However the more "industrialized" men contentedly followed recreational patterns very similar to those of the white workers (p. 116). The first point suggests the desirability of providing access to a bunkhouse

especially for those on shift work, whose home and family situations may tend to preclude their getting adequate rest at home. The second suggests the need, particularly for those in noisy, enclosed, or underground work situations, for periodic long breaks from work particularly for the less acculturated or work, adapted, so they can go hunting, thereby achieving psychological release, and perhaps game as well.

Williamson's discussion of the aftermath of closing down the mine is muted. However the fact that in the first winter after the mine closed no fewer than 400 Inuit required sustenance from relief moneys is eloquent (p. 135) and points to the need for adequate planning and preparation for all such cases. An added irony is the fact that the Government actually displaced some Inuit workers with white workers, the Inuit plumber being one noteworthy example (p. 132). It is noteworthy that a survey which Williamson conducted among the Inuit mine employees during the months immediately preceding the final closing of the mine showed that over 80 percent said they would prefer to continue in some form of wage employment. Only 10 percent specifically indicated that they would like to return to hunting communities.

Summary. The points of relevance for the present report, in the Dailey's and Williamson's studies of Inuit employment at the Rankin Inlet mine are as follows. The major point, of course is that large numbers of Inuit, most of them with absolutely no educational or employment background, were quickly trained for a wide variety of jobs, many of them skilled, and some very highly

skilled. They worked satisfactorily and steadily at these jobs for a number of years, until the mine closed. There were initial problems in punctuality and dependability. These were resolved in part by a process of training the Inuit to a much sharper sense of time conscientiousness. The Inuit were also trained to inform their foremen in advance when they would be absent, and thereafter the Inuit community began to function as a labor pool from which replacements were drawn when men wanted to take time off.

The concept of work rotation thus appears to have some significance even when the work site is adjacent to the settlement, in providing an opportunity for psychological release from the noise and confinement of the work place, as well as for hunting, fishing, or other activities relevant to the Inuit worker's life style.

Evidence was cited of the difficulties experienced by unacculturated Inuit who were ill-nourished because they did not know the kinds of groceries to buy, and ill-rested, because they could not sleep in their very small, badly over-crowded shacks or houses, when they reported for (shift) work. This suggests the need to provide optional bunkhouse accommodation for such men, particularly during a transition period, when the family first moves to the place of employment, and has not yet learned to avoid the temptations of "junk foods".

Although beer was available for four hours nightly to the Inuit workers, drunkenness and drunken violence did not become a problem, perhaps because the availability of steady work pre-



ceded the availability of beer. There was apparently virtually no attempt to provide systematic, adequate orientation to the whites with respect to their Inuit co-workers, or to the Inuit with respect to their white co-workers. The result was that the Inuit suffered unnecessarily from prejudice, from white haranguing, shouting and derision, to which the Inuit are far more sensitive than whites realize. The fact that these forms of ill treatment did not drive more Inuit "to drink" is important, and deserving of further study.

The unfortunate plight of almost 100 families in Rankin Inlet, following the shutting down of the mine, strongly suggests the importance of large scale and effective advance planning to insure that further opportunities are made effectively available for people whose employment ends.

In this context it is extremely important to develop a range of "catch net" type programs for native communities which have experienced a "crash" in employment opportunities affecting a high proportion of the population. Such programs should be organized by the Department of Economic Development of the Territorial Government, and could well involve joint government-private industry programs, as well as independent programs mounted by each.

The Deprez (1973) study of The Pine Point Mine and Development of the Area South of Great Slave Lake differs from the studies of the Rankin Inlet mine in that, initially at least, there was very limited employment of native people at Pine Point. Deprez retraces the history of this in terms of the obstacles to

native employment, the data available on the build-up of native employment, and the work durations of those employed.

The history of the Cominco mine development, and particularly of building the infrastructure facilities required by the mine, show very clearly that the initial concern was with exploitation of the ore resources. There was little concern with using the development to maximize the employment opportunities for the native people in the area. Thus construction of the Great Slave Lake Railroad, the financing for the Pine Point airstrip, the building of the Hay River-Pine Point road and the governmental funding for the Pine Point townsite were all arranged by early in 1963. As a result of these facilitative developments, production at the Pine Point mine was able to begin in November, 1964. By contrast the road between Pine Point and Fort Resolution, which would provide good access for the residents of this native community to the employment in Pine Point, was not completed until 1972. Of the total investments in infrastructure totaling \$100 million, less than 2 percent was spent to facilitate access of native people, and this at a very late date.

Eventually a number of essentially minor efforts to facilitate native employment were made. One, badly needed, related to housing. A major deterrent to persistence of natives employed at the mine was the lack of adequate housing for their families at the mine site. Most of the Indians employed had to live in bunkhouses at Pine Point, separated from wives and families. Government financed housing was built by Cominco for married workers at the site, but this was early occupied by whites and

became vacant only infrequently. Indians who obtained this housing "stayed with the mine despite other problems" (p. 72). Those in the bunkhouse including both Indians and whites, had much higher turnover rates. In February, 1969 the Department of Indian Affairs and Northern Development, together with the Territorial Government, announced a program to provide suitable housing for northern residents employed at Pine Point. Unfortunately, however, this program became bogged down in bureaucratic red tape of various kinds, so that by the summer of 1970, when the Deprez study was made, the net effect was to provide two house trailers under this program. While the rents were subsidized they were about \$60.00 per month higher than for comparable Cominco provided trailers (pp. 67-71).

A second move by the company in 1968 involved sending some "qualified" native workers to the Heavy Duty Equipment Training Camp outside Fort Smith. Sixteen men received this training in all. However Cominco did not guarantee positions for the men appropriate to their training, only that they would be employed as laborers until appropriate positions opened up. This, together with the housing difficulties, resulted in retention of only four of the 16 who received this training on the Cominco payroll as of June, 1970.

A third step involved establishment by the Northern Economic Development Branch of DIAND of a position for a resident employment liaison officer at Pine Point, to whom Cominco was to communicate all employment openings in the Spring of 1969. This position was filled by an Indian from Fort Resolution. The

responsibilities of this position were inevitably difficult to fulfill, involving as it did providing liaison between groups with conflicting expectations -- the Territorial Government, the native labor force, and Cominco. Deprez concludes that Cominco failed to give full cooperation to this employment officer. He was effective in providing counselling to native employees, and liaison with neighbouring native communities, however.

Finally, a four party training agreement was signed between the Department of Indian Affairs, the Territorial Government, Cominco, and the United Steel Workers Union in November, 1969 to facilitate the expansion of employment opportunities for residents of the Northwest Territories, particularly those in the area south of Great Slave Lake. Under this program the Territorial Government was to pay half of the wages received by each of six trainees. Deprez does not present data on the number of northerners enrolled in this program as of the summer of 1970.

The result of these varied and tardily instituted programs has been an increase in the numbers and proportions of the native component of the Cominco work force, as follows:

1967	--	10 natives, or 4.6 percent of total labor force.
1968	--	34 natives, or 12.4 percent of total labor force.
1969	--	57 natives, or 14.7 percent of total labor force.
1970	--	70 natives, or 17.0 percent of total labor force.

In all, as of the summer of 1970, a total of 181 natives had had employment with Cominco, a number representing about one-fifth of the labor force enumerated in the 1967 Manpower Test Survey conducted in this area.



Deprez's data show that as of December 31, 1969 the Indian employees had worked longer durations than the total work force, as the following figures show (pp. 105-106):

	<u>Total Labor Force</u>	<u>Native Labor Force</u>
Worked under 6 months	54%	35.0%
Worked 6 to 12 months	16%	16.5%
Worked 13 to 24 months	15%	24.0%
Worked more than 24 months	15%	24.5%

Further analysis showed that while the average duration of employment of the native terminees was shorter than for the non-native terminees, among those still employed in 1970 the natives had average longer employment than the non-natives.

Analysis of more detailed data available for those employed in the "mill" permitted a test of the common belief that "the employment behavior of the native people follows a very distinct pattern dictated... by the flux of the seasons." The data "show that there is no distinct pattern, and that the differences between the seasonal hiring and severance patterns of both white and native employees are very minimal," a finding which Deprez says is supported by other studies (pp. 113-115). The data analyzed also show that the older, married native workers tend to remain longer on the job.

Deprez's data show that the native employees have generally proved to be more persistent in remaining on the job than the white employees. Thus it is unfortunate, for Cominco as well

as for the native people, that the early biases in the infrastructure militating against native employment were permitted to develop, and that the provisions to facilitate employment of natives were so late in coming and so disconnected. One must conclude with Deprez that the employment of local natives was hampered by the "lack of coordination of the different facets of the development program. Housing, employment, training, and road construction (of the Fort Resolution-Pine Point road) were all seen as separated and independent programs, while in fact they were all closely related and interdependent... the rate of labor turnover and need for new housing would likely have been significantly reduced had a road linking Pine Point to Fort Resolution been seen as an early priority." (p. v). In the face of these obstacles, the longer work persistence of work duration of the native as compared with the white employees is indeed impressive.

Lloyd (1974) supplies some additional information on later developments in Pine Point. By December, 1971 20 houses and four house trailers were available to native employees in Pine Point under the Territorial Government housing rental program. At that time changes were made in the program to lower the rents, but the charges yet remained \$25.00 per month more expensive than comparable Cominco housing. The number of native employees increased in 1971 to 86, representing 17.5 percent of the work force, but as of September, 1973 it had declined to 48 people, 8.7 percent of the work force. No explanation is given for the decline (Lloyd, 1974, pp. 19-20).

There have been three studies of northern native relocation programs, by Stevenson, Lloyd, and Forth and Williamson. Stevenson's (1968) is restricted to consideration of relocation programs involving Eskimos. He is an anthropologist who speaks Inuktitut and his report is based on field work which he conducted involving interviewing Inuit at relocation sites. He is generally interested in the adjustment of the Inuit to the relocation experience, and his interviews produced rich insights into the reactions of the natives. However the number of cases is very small, and virtually no statistical data are presented.

Lloyd's 1974 Review of Northern Native Relocation Programs is restricted to a review of published and unpublished documentary information on 12 programs, nine of which were relocation and three were rotation programs as noted earlier in this chapter. Lloyd's review includes a concise presentation of the gross statistics relevant to each of these programs. His brief summary of each includes information on the description of the project, its objectives, the method of preparation of natives, type and scale of relocation, working conditions, particular agreements or contracts and employment results, where such information was available.

The study by Forth and Williamson, undated but completed in 1974 or 1975, is the most comprehensive of the three. It incorporates not only the previously published material by Stevenson and many others but original research conducted by the authors as well. Two early chapters deal with several early attempts at relocation of Inuit for land resource harvesting and

relocation to Rankin Inlet. Of particular interest here are the remaining chapters which deal with relocation of Inuit to northern Alberta to work on the Great Slave Lake Railroad, to Tungsten, N.W.T., to Asbestos Hill in Quebec, to Yellowknife, and to Lynn Lake, Manitoba, in every case to work for mining companies. These accounts profit from thoroughgoing searches for the relevant published and unpublished documentary information available, and from Williamson's personal acquaintance with many of the Inuit who were involved in these relocations.

The information from these sources will be briefly summarized in the following pages. At least four of these relocation episodes were the result of efforts by the Department of Northern Affairs and Natural Resources to find opportunities for the Inuit with mining experience who were thrown out of work when the Rankin Inlet mine closed in the fall of 1962 -- those at Tungsten, N.W.T., Asbestos Hill, Quebec, Yellowknife, N.W.T., and Lynn Lake, Manitoba. The first two provided employment for three and 10 men respectively. All three at Tungsten quit during their fourth month, when their families had not been brought to join them (Lloyd, 1974, p. 7; Forth and Williamson, n.d., p. 41). The ten employed at Asbestos Hill lost their jobs after six months when the development activity ceased (Lloyd, 1974, p. 9). Of the nine men who were relocated to work in the gold mines around Yellowknife in 1963, three quit during the first year, two during the second year, one during the third year and three during the fourth year (Lloyd, 1974, p. 11).

The employment of northern natives, mostly Inuit, in the



construction and operation of the Great Slave Lake Railroad was also probably stimulated by the closing of the Rankin Inlet mine. A total of 119 people were employed in the seasonal, construction jobs, and 18 were employed in permanent, operating positions. No data on duration of employment are provided by Lloyd (pp. 21-24) and no source provides a cut-off date when the last Inuit quit. A few were still working in early 1971, but all quit shortly thereafter. According to Stevenson (1968) there were ten important factors determining the adjustment of the Inuit working on the Great Slave Lake Railway:

1. Good command of English.
2. Previous industrial experience.
3. A fairly accurate idea about opportunities for employment in the north.
4. Having a wife who was motivated to relocate in Alberta.
5. Accurate briefings regarding working and social conditions in the south before they made the move.
6. A transportation system making possible keeping in contact with kin because visits to the home community were easily made.
7. Clear explanation of a relatively rigid set of rules of work.
8. Availability of adequate housing for married men which makes permanent migration easy.
9. Comprehension of the norms governing non-work situations. Many Inuit did not understand these norms, with resulting problem consequences.

10. The absence of kin obligations, especially for unmarried men.

Williamson and Forth suggest that bethrothal, financial difficulties, hunting partnership claims, the need for help at home, and mutual loneliness may all have been experienced as demands which were antithetical to adjustment following relocation.

By contrast with all of the above problems, the Lynn Lake, Manitoba program has involved continued efforts to recruit northern natives, so that as of 1974, a total of 39 Inuit had worked at the Lynn Lake mine. Of these, 18 quit during the first year, five during the second, four during the third, two during the fifth, and two lasted six or seven years. No information is available on eight employees (Lloyd, 1974, p. 14).

Twenty-five of those who relocated to Lynn Lake did so between 1964 and 1969 and of this group, all had returned to their homes in Rankin Inlet by the end of the summer, 1971. Williamson and Forth collected background information on most of these 25 workers, and present tabulations showing the relationship between the worker's age, marital status, previous industrial relocation experience, and formal schooling experience, and the durations of their industrial employment at Lynn Lake. Their data show that longer employment durations were more characteristic of older, married men who had previous relocation experience and who did not have formal school experience. Generally this suggests that age is the prime determinant here, but married status was shown to be associated with lengthy relocation even with age roughly held constant (Williamson and Forth,

n.d., pp. 63-77 and 90-91).

The studies of these relocation experiences show that with the exception only of the later years of the Lynn Lake program, the preparation of the natives for these relocation experiences was rudimentary in the extreme, to non-existent. The housing available was commonly only bunkhouse accommodations. Where family housing was provided, as at Roma Junction on the Great Slave Lake Railroad and at Lynn Lake in the mid-1960's, it was entirely inadequate.

Stevenson interviewed Inuit employed at Yellowknife, Lynn Lake, and Roma Junction in their own tongue during this period (1968). He interviewed both husbands and wives and found himself warmly received, once the Inuit realized he spoke their language. In all three locations, Stevenson reports that the Inuit workers were hard workers, that they typically gained a good reputation for showing up for work, and that management was well impressed with the work record of the Inuit employees.

Stevenson reports:

Of the three factors: grade schooling, training, and work experience, the latter appeared to be most significant in determining the attitude of the men toward their present job and toward the possibility of taking permanent employment. The permanently employed group have all had previous experience in wage-earning situations in various places throughout the Arctic. On the other hand, persons having only training from a trades school type of institution were usually as ambiguous as untrained persons in the question of permanent moves. This is particularly true for the younger, unmarried and recently trained men. Men with grade school education only, seem to form two categories. Those with grade eight or higher indicate a greater awareness and anticipation of the benefits to be derived from wage-labour. They include men with vocational training as well as those without this added benefit. The second category includes those with

less than grade eight (again including those with vocational training). This group displayed the greatest degree of dissatisfaction with both the work and social conditions. There is still one other type of man that deserves describing. This is the man, generally married, adult (22-30 years), who has learned English by himself and has achieved a reputation for some skill or skills in his home community. As a group these men present the most eagerly aware and ambitious attitudes of all groups encountered. Their acquisition of southern employment has been prompted not by either government or employers' inducements, but by a personal decision based upon information gleaned from a number of sources.

Such problems as Stevenson reports originated off the job, and included problems of inadequate housing, poor recreational opportunities, problems of adjustment of wives to living in the south, and problems of the men in relationship to their relatives. We noted earlier that several women, feeling despairingly that "there is no place for me in this land" began to drink more and more heavily, to the neglect of their children and their husbands. Of the kin ties, Stevenson writes:

I concluded, on the basis of my summer's work, that the influence of kin was strong for the majority of the Eskimos interviewed. The exceptions were those Eskimos who had a relatively longer history of separation from their kin-group (or had a numerically small kin-group) although even here if the wife still remained closely tied to her kin-group there was a decrease in the ease with which the family was adjusting to the new situations. I can only suggest that the problem of kin-ties is a peculiarly individual problem, and that perhaps if the kin left behind had better information as to the location of their people, and if the migrants made better attempts to keep in touch and to carry out their obligations from a distance, a not impossible act, then the restrictions placed on them might be lessened (p. 24).

Stevenson concludes his paper with a discussion of three options: (1) persistence of a hunting-trapping economy, (2) seasonal, essentially rotational work employment in which workers do not permanently leave their home settlements, and (3) employ-



ment involving at least semi-permanent relocation of workers and their families to other parts of Canada. Assessing the first, he concludes that "there is absolutely no reason to assume that trapping-hunting, trapping, or in the final analysis hunting, is now or will ever again be available and acceptable subsistence activity." (p. 23).

He concludes that both the second and the third are entirely feasible options, that on the basis of his interviewing and his experience there are numbers of Eskimos who are interested in and capable of making the temporary or the permanent moves that realizing these options would entail. Of the second "rotation" option, he notes this would mean that "men would be leaving wives and children behind during the work season. Whether this is 'bad' or 'good' is a moot point but it certainly is a 'fact of life' for some labor segments of any industrial society; for example, steel workers, oil-field workers, and fishermen, to name a few, have been doing this for a very long time." (p. 23.)

On the positive side he notes, as long term benefits, that rotation work arrangements would result in dissemination of badly needed information among other residents of the workers' home settlements, and that money so earned works against the "welfare mentality" that has been growing in many of these settlements, and benefits the northern economy. He notes problems relating to adequate housing, the language barrier, relationships with kin left at home, and adequate briefing of the men and their families, found with respect to both the second and the third options.

Four other relocation programs are described in Lloyd's

review (1974) including the Pine Point experience which has already been discussed. A program initiated by businessmen in Guelph, Ontario to provide employment for Inuit has been in continuous operation since 1964. As of 1974, 24 Inuit had had experience with this program. The orientation provided to workers was more adequate than in the cases of the programs described above. Although there was no formal orientation before participants left home, information about the nature of the jobs and living conditions was provided by the local teachers and settlement managers. While in Ottawa, enroute to Guelph, the relocatees usually met with counselling staff and were given more information about the jobs awaiting them. Most were young, unmarried. While in Guelph, most rented rooms in local boarding houses and a few rented apartments. Loneliness was no problem since there were usually three or four in the program there at the same time. DIAND hired part-time counsellors to provide help in solving local problems who were usually in touch with the relocatees at least once every two weeks.

With this kind of well worked out program, 16 stayed no more than one year, an additional six stayed as long as two years, and two stayed for a longer period (Lloyd, 1974, pp. 15-17).

The CAGSL Northern Training program was established in August, 1972 to provide "hands on" training for northerners in pipeline employment, usually in the southern provinces. Trainees were well screened and well briefed, and their supervisors at the work sites to which they were posted were often, though not always, well briefed on how to work with native northerners. In addition

full-time counsellors visited the trainees at frequent intervals, and were always available by telephone. Married trainees were moved with their families at the time that they relocated to their training sites. The attempt was made to always have at least two northern trainees at each site, but this was not always successful. Adequate housing, usually in the form of the house trailers common to the remote gas plant and compressor station sites, was arranged prior to the arrival of the trainee to their postings. Where such efforts failed, the trainees were put up in motels or other temporary accommodations until their permanent housing was ready.

As of September, 1974, 111 men had been enrolled in the program and 34 (31 percent) had quit or terminated leaving 77 yet in the program (Lloyd, 1974, pp. 27-29 and Hobart, 1974).

Agreements which were signed with the Department of Indian Affairs and Northern Development by the Anvil Mining Corp. which led to the opening of the Anvil mine near Faro, Y.T. in 1970 included the specification of percentages of local residents to be employed, with preference given to Indians and Inuit. At least 5 percent were to be employed during the first year, rising to 10 percent in the second year and 25 percent in the fifth year after the mine came into production. The agreement provided further that a training program for supervisors and foremen to facilitate and ensure compliance with these quote requirements.

One of the obvious weaknesses of the program is that no formal program to prepare natives for relocation to the mine site

has been instituted. The company has sent recruiters into nearby Indian villages, but most native employees have been referred by governmental agencies in Whitehorse. Nor has adequate housing been provided to facilitate the relocation of families which, we have seen, is critically important to the job stability of native workers. Rather, most native workers came in from local villages, lived in single status quarters at the mine site, returning to their families whenever possible.

Those natives employed in 1974 were working as laborers, miners' helpers, welders, and equipment operators at wages ranging from \$4.57 to \$5.67 per hour.

In the years between January 1, 1970 and December 31, 1973 a total of 97 individuals were hired in a total of 137 hirings. No work duration information is available for individuals. Of the 134 hirings for which data are available, 39 were for no more than one month duration, 46 lasted from one to three months, 20 from three to six months, 23 from six to 12 months, and six had lasted more than 12 months.

No interview data, reflecting the subjective reactions of native employees to their work or their living circumstances, are available for any of these last three relocation projects. While the Guelph and the CAGSL programs appear to have been quite adequate in terms of orientation of the employers, of the relocatees, and adequate provision of suitable housing, the same does not appear to be true of the Anvil Mine project, particularly in the last two respects. It is discouraging, to say the least, that a full ten years after the earliest of the native worker relocation



programs, the Anvil project should have been launched with such disregard for the orientation and housing needs of the native people whom it is designed to benefit.

The three work rotation programs described by Lloyd are covered in detail later in this report.

Summary. The conclusions stated by Williamson and Forth in their "Analytic Summary" chapter are generally relevant to the broader range of relocation episodes involving native people which we have reviewed. Williamson and Forth conclude that successful relocation adjustments among Inuit who have experienced industrial relocation is related to the following ten considerations: (1) maintaining close kinship ties, preferably by relocating groups of people having common kinship ties; (2) strong motivation to make the move; (3) previous relocation experience; (4) detailed and understandable advanced planning before a recruitment takes place; (5) generous funding for relocation projects; (6) adequate communication between persons relocated and their old home communities; (7) adequate minimal mastery of English; (8) easy access to people who serve as models for new patterns of behavior which should be acquired; (9) provision of housing that is adequate in terms of amount and quality; and, for some at least, (10) an environment which is not disturbing and provides needed resources. Thus some men found the presence of these and of high mountains somewhat disturbing, and women adjusted better where the needed raw materials were available for native sewing and craft activities (Williamson and Forth, pp. 86-102). To this we would add that the availability of counselling help, both

before the move is made, as well as for the first six months or more after relocation, is related to successful relocation of native people as well.

The Mental Health of Northern People. As is true of the other literature we have cited previously, much of the literature to be found in this area is relevant to the Inuit. Less has been written on the subject of the emotional adaptation and mental health of the Indians in the Northwest Territories.

Much of the information which is found is incidentally introduced in other contexts; thus Stevenson describes the problems of adaptation and the problem symptoms of Eskimo wives who had relocated to the three communities which he studied.

Finkler and Parizeau, in their study of Deviance and Social Control Manifestations, Tensions and Conflict in Frobisher Bay paint a rather grim picture of the emotional adjustment and the mental health of Inuit living in Frobisher Bay at the time that they studied the community in 1972. They summarize their findings as follows:

In Frobisher Bay many people, both white and Inuit, are of the opinion that much of the frustration and bitterness experienced by the Inuit can be attributed in part to the indecision and inconsistency that has marked the policy of the decision-makers concerning the Eskimo people. The resulting ambivalence of whether to opt for the assimilation of a people, or for a "laissez faire" approach wherein the Inuit would decide their own destiny, or for a compromise between the two, appears to be the dilemma of the north. We believe that the present policies of the Federal and Territorial Government applied to the Inuit, while formulated on humanitarian principles, have not achieved their objectives. Their philosophy, often paternalistic, was not intended to sabotage the cultural heritage of the Inuit. However, as evident in other organizations, official policy is frequently in sharp contrast with what is actually implemented at the

lower levels of the structure. This is a special problem in the north, where Government departments zealously strive to protect as well as proliferate their vested interests. In part, this is due to the vastness of the land minimizing valiant attempts toward the centralization of authority. In addition, the perceptual differences between the Territorial and Federal Governments as to what is felt to be in the best interests of the north is a factor which warrants further examination (p. 180).

The most comprehensive discussion of the emotional adjustment of the Inuit, relevant only to the Mackenzie Delta, is found in Lubart's Psychodynamic Problems of Adaptation - Mackenzie Delta Eskimos. In the course of describing indications of conflict he discusses drinking and sexual behavior, conflict in young people and conflict pertaining to work. In this latter context he writes

...among the few relatively conflict-free Eskimos known well by the author are several land-dwelling young men who live amongst and work with older relatives. These work hard and garner much of their living from trapping and their food from nature. They also come to Inuvik for a time in the summer for part-time work to raise some cash for particular needs. They will not work at a steady job, not because of passive goals, but out of pride....

Evidence from (one informant) and others close to the land indicates changing and ambivalent attitudes with regard to possessions, attitudes that come into conflict with traditional values about property. This, along with factors relating to competition envy, and accumulation of possessions, may play a vital role in some of the difficulties observed in the Delta with regard to poor work initiative, low potentialities for creative effort, and reluctance to compete for advancement and position (pp. 12, 13).

We should note here Lubart's observations that such men were among the most conflict free to be found in Inuvik, and that they were entirely opposed to accepting permanent employment. There must today in the Arctic yet be very large numbers of such men especially in the smaller, less acculturated communities.



The implication we draw is that they would probably be interested in accepting rotation work employment, would perform well and would profit from it, perhaps in several senses, whereas they would be entirely uninterested in relocating, whether to work in the south or in other permanent employment contexts.

Lubart devotes considerable attention to the subject of the social pathology of Inuit men and women. Of the former he writes:

Most males living in the settlements are at least partly dependent on welfare and very few earn a steady living, since permanent jobs are in short supply. Among these men there is a high incidence of severe sense of failure, accompanied by depression and massive drinking. Very few possess skills with which to compete with the white worker in his own world. The Eskimo is quite aware that most jobs available to him are temporary, generally of laborer level, and glaringly indicative of his lower status. It unfortunately must be added that often job opportunities go unfilled, and that very few have availed themselves of opportunities for training. Many men feel quite insecure at the bleakness of their future in the face of a constant shortage of permanent full-time jobs. Thus a major blow to male pride is an ever-present and ubiquitous sense of lost usefulness, of lost opportunity for self-validation as a family provider.

How much the model of the white world affects the Eskimo is borne out by the young men's attitude toward trapping, a potentially lucrative trade but one which they usually reject on the ground that it is low work and because "the white man thinks that's all a native can do."

Observing the fully employed white worker, comparing his status with his own, and, above all, suffering the huge blow to pride that is the inevitable product of the females' prime interest in white males, the Eskimo finds himself severely threatened at every level at which a man's pleasure and self-esteem rest. He cannot function in a setting for which he is not equipped either for social or vocational competition and, in many instances, his sexual potency seems to fail in fear of the powerful white adversary who is so attractive to the young women.

Many Eskimos feel a great deal of ambivalence toward the white man; some manage to function in his presence with



their self-respect still relatively intact, while others experience a sense of inferiority which they may express when drunk, at such times disparaging their own skin color and uttering bitter comments about white prerogatives. There is a high level of anger in these men, especially in those whose work history is limited. In a more subtle sense, there is self-directed hatred based on awareness of a lowered self-image in comparison with the powerful white adversary who can come and go as he pleases, live where he pleases, and do what he wants. It appears that these men are incipiently ready to detest themselves for not being white, and this form of self-disparagement could become more serious if opportunities are not forthcoming for prideful work of more or less equal status with that performed by white men.

Of Inuit women Lubart writes:

The problems of the young Eskimo woman of the Delta today vector about her sense of confusion with regard to identity, role, choice of love object, and sources of self-esteem. She experiences distortion of goals and disturbance in her formation of an appropriate concept of maturity, due to disruptions in parental aims and appropriate models.

The male, if only in illusion, expresses the wish to validate himself by resorting to the values of the land and by functioning, therefore, as provider and head of a household. Even though he envies and fears the resourceful and technically superior white man, he basically repudiates him and seeks to enhance his own self-image by identification with the portrait of a land Eskimo, with regard to role and function.

The young female functions far differently and shares none of the conscious or dimly valued notions of the male concerning identity as an Eskimo. She repudiates the land, the values and traditions of her parents and forebears, and in no way shapes her self-image in the forms of the past. Instead she strives to imitate the white female as a model, to identify with her ways and behavior, her goals and social attitudes. For the female, far more than for the male, the white culture represents the desired plateau, the source of self-image, the ultimate in self recreation, and the pattern for identification. The point of departure for this re-emphasis of form of identity is a constricted portrait of the worth of her own cultural past, with parental models coming off a poor second in comparison with her illusion about the elevated status of the white community. Her perception of a new identity is rooted in the least enduring, most superficial of available patterns for imitation. She does not identify with the aims and

goals of the more mature white woman, but rather with the accoutrements of white identity itself. In short, she wishes not in the least to be an Eskimo, prefers not to look like one, places high value on the physical attributes of whiteness and wishes to be white. This wish manifests itself in a variety of forms ranging from dress, manners, hairdos and make-up to much more subtle expressions of desire including repudiation of non-white males as love objects, the overt wish to "marry a white man and get out"; and even the illusion that bearing a half-white child confers a certain distinction. The latter, in a variety of instances, as expressed through conscious fantasies and dreams, carries the illusion that such an infant in some way validates the mother's goal of whiteness.

It is quite apparent that the young Eskimo woman's emotional conflict is centred about her sense of inferiority. The important point is that her sense of inferiority stems not simply from the perception that she occupies a low position in a hierarchy of status, but also from a conviction about the inferiority of her own race and culture. Thus her inferiority feelings are more profound and potentially more damaging than would be the case if they were merely the product of status differentiation within a single cultural milieu. Of course these observations also apply to many Eskimo men but with somewhat less force, owing to the male's generally greater commitment to traditional cultural values (pp. 42, 43).

Lubart concludes:

In summary, we note that various implicit conflict patterns have come to the fore and are evoking disruption and confusion in Eskimo values, human relations, self awareness, and capacity for new adaptations. Most notable of all are the consequences of the falling status of the male and the confused and self-destructive attitudes of the female toward him (pp. 44, 45).

Lubart's material does not give us any very clear clues concerning what the length of the work rotation period should be. However he does give clear indication of the importance of access to white men's work as well as to opportunities to practice more traditional land living skills, in order to sustain or to regain both his own self-esteem, and the respect of native women. Clearly, simply to return to living off the land would not con-

stitute an adequate solution, because it would not gain him the respect of native women, much less enable him to compete effectively for their attentions with white men.

Summary. Certain conclusions seem warranted on the basis of the ethnographic research that we have reviewed.

1. In those areas where intensive commitment to trapping became established, as early as the 1920's in some areas, periodic separation from family and community has been a common and expected aspect of the man's role. Trapping involved not only considerable isolation, but also a certain amount of privation and danger, while on the trap line.

2. The plight of many Inuit groups seemed so severe during the early 1960's that a number of careful and concerned students of their situation concluded that the best course of action for them would be to be relocated in southern Canada.

3. During the same time (early 1960's) there was increasing evidence of the growing disinterest of native young people in many aspects of the traditional life style, including trapping, fishing and whaling for men, and working with furs for women. Some kind of wage employment was increasingly much more popular.

4. Several experiments involving the relocation of Inuit families to centres in northern Alberta and Saskatchewan, and in Yellowknife showed that the men typically made very good work adjustments, and were highly thought of by their employers. However there were difficulties outside of the employment area, including lack of adequate housing and of adequate recreational opportunities, difficulties in the adjustment of wives to their



new surroundings, leading to pronounced alcoholism in some cases, and difficulties with absent relatives leading to sudden decisions to return to homes in the north in some cases. Nevertheless, Stevenson's conclusion was that the Inuit who had experienced relocation had shown themselves to be adaptable that either rotation work employment in the north or employment at relocation sites in the provinces were realistic and appropriate alternatives to consider for them.

5. Williamson documents the fact that substantial numbers of Cariboo Eskimos, who a few years ago had been living in tents and snow huts, and wearing fur clothing, made successful adjustments to the entirely unprecedented experience for them of working underground as miners in the Nickel Mine at Rankin Inlet.

6. Lubart concludes from his study of the psychodynamic problems of adaptation of Inuit of the Mackenzie Delta that the men and the women have distinctive problems. Among the men these problems relate to feelings of inferiority as compared with white men, and of resulting hostility toward whites, dislike for their authority, etc., which are handled by increased drinking. For women, the consequence of their exposure to formal education and to the white life style is disinterest in native men, a tendency to throw themselves at white men in hopes of so securing a white husband, and resulting feelings of inferiority, shame, guilt and hostility, which are handled by increased drinking. Needless to say, these attitudes on the part of the women exacerbate the emotional problems of the men.



## CHAPTER IV

### The Responses of Native Workers to Rotation Work Employment: Seven Days at Work Followed by Seven Days at Home.

#### Introduction

We have seen in the previous chapter that there are no published studies of the responses of any group of workers to rotational work employment, much less the responses of Canadian northern native workers. However data on the responses of northern natives to such employment are available from several unpublished studies conducted in Canada since 1973, and also from certain data collected and analyzed explicitly for this report. The available data deal with a variety of work rotation arrangements including seven days at work followed by seven days at home, 14 days at work followed by seven days at home, 20 days at work followed by 10 days at home, and 42 days at work followed by 14 days at home.

A number of other variables which will probably affect workers' reactions to the length of the work period, should be noted. These include the number of hours worked per day (from 8 to 12 hours, or even longer), the kind of work involved (clerical, unskilled, equipment operation, skilled trades) which has implications for physical fatigue and duration of exposure to the elements, the alternative employment opportunities available in the community or under other rotation

work arrangements, and the level of acculturation in the community which may determine whether the work camp is more attractive (with its pool and ping-pong tables, television, movies every night - and coffee and snacks commonly available at any time at most work camps) or less attractive than the home community.

In the chapters which follow we shall proceed to describe and present data on the variety of rotation work arrangements listed above, beginning with the shortest rotation period - seven days at work followed by seven days at home.

Seven Days at Work and Seven Days at Home:  
Employment at the Rabbit Lake, Sask. Mine

Rotation employment of native people of northern Saskatchewan at the Rabbit Lake mine operated by Gulf Minerals Canada Ltd. has taken two forms. The first and more brief was during the construction phase of the mine, from April to December 1974. The second is the mine operation phase, from the end of 1974 to the present. The first is the shorter and less interesting of the two, but both will be dealt with below. Most of the information on which this chapter is based is derived from Scott (1975).

**The Construction Phase.** As a condition imposed by Gulf, the construction contractor, Fluor Utah, agreed to make a special effort to hire natives. The result was that during the April to

December construction period a total of 42 native residents of the Athabasca region of northern Saskatchewan were employed. Specifically the men hired came from Uranium City, Fond du Lac, Stony Rapids, Black Lake and Wallaston, which are respectively about 200 miles, 150 miles, 100 miles and the last two are less than 50 miles, from the mine site. Men from the Athabasca region were flown on charter flights which, after landing to pick up workers in the various communities along the way, flew directly to the mine site. The work period was initially 45 days, followed by 7 days at home, but this was reduced to 35 days at work followed by 7 days at home, in an effort to reduce turnover. These lengthy rotation intervals were no doubt made more so, for the men affected, by the fact that Gulf employees were on a 10 - 4 rotation schedule at that time.

Turnover was of course high. The men from the Athabasca area lasted from 10 days to the full seven months that it took to complete construction. The average duration of employment of the native northerners was about two months, according to Scott (1975). Some men were fired for intoxication on the job, or for failure to show up for a shift, but the great majority quit for reasons that are not known, but probably include their dissatisfaction with the conditions, as well as the type of employment they experienced. It should be noted that turnover was very high as well for the southern white construction workers. Unfortunately Scott (1975) fails to cite specific figures or rates for natives or whites.

Scott mentions a number of factors which probably tended to inflate the native turnover. The employment period covered the time of year when hunting and fishing are at their best. Many of the men had never earned such large sums of money so quickly before, and wanted to quit work after only a short period, when their immediate cash needs had been met. Some Gulf Minerals officials felt that there was strong resistance from the unions to native employment, and that there was open discrimination against natives in terms of the jobs they received which were, almost without exception, laboring jobs with no responsibility. Gulf officials found the high turnover rate among the native workers distressing because it boded ill for the native training and employment program they were to mount during the production phase at the mine.

The Production Phase. Because the mine is expected to have an operating life of only 10 to 12 years, it was decided that the expense of building a "company town" was not justified and a rotation scheme was accordingly decided upon involving 7 days at work and 7 days at home. The work day is 12 hours long, with an hour off in the middle to eat a hot meal in the dining room. Two shifts run a 24 hour a day operation. No overtime is paid, rather the men put in two weeks of work time during a single week and are thus able to spend the second week at home with their families. Gulf officially discourages taking a second job during the long



break at home in order to minimize the risk of lost work time due to accidents elsewhere. Thus there is no incentive to accept this employment with Gulf in the form of increased earnings, but obviously the opportunity to work steadily and yet have every other week off may itself be a powerful incentive.

The accommodations provided at the mine site are "motel type", with a central dining hall, for a peak work force anticipated to be about 200. A variety of recreational opportunities are provided for off-hour use: a recreation hall, movie theatre, store, and "pub" as well as fishing and skiing in season. Drinking is strictly limited to the pub, which presently serves only beer, and the number of bottles per individual at a table is limited. An application has now been filed, with Gulf's approval, seeking a permit from the Liquor Board to serve hard liquor. Drinking elsewhere in the camp is strictly forbidden, and one native northerner and one non-native have been fired for possession of liquor and drinking in camp.

During late 1974 and early 1975, Gulf officials embarked on a recruitment process, to secure production staff, which involved open-minded and sensitive negotiation with representatives of most of the native communities which were within reasonable commuting distance - up to 200 miles or so - of the mine. Specifically, the recruitment procedure involved the following steps:

1. Availability of labour was assessed with the assistance of DNS, and Indian Affairs and the Northern Municipal Council were contacted.

2. Gulf officials introduced themselves to community leaders, and there were casual conversations with chiefs, councillors, and the Northern Municipal Council.

3. Public meetings were held in the communities, explaining the Rabbit Lake Operation with the aid of audio-visual materials.

4. It was discussed with the communities how, if at all, they would like to be involved at the site. Gulf officials did not come with a pre-set plan. They sat down with community members and representatives, stated the basic concept of a commute system which would not require relocation of employees, and asked communities what specific arrangements would be satisfactory. One Northern Municipal Councillor claims that Gulf has impressed communities with the sincerity of its approach, and that in fact considerable dialogue and mutual education, oral and written briefs were hashed through, before guidelines for employment, shift rotation, etc. were mutually agreed on.

5. Applications were circulated, interviews were conducted, and screening done. Elected representatives, RMR, and others who would be in a position to know something about the individual applicant's employability were consulted with during the selection process. Motives for wanting work, attitudes toward past jobs, communication skills, and living habits were considered, but according to Gulf, trainability and desire to work were the two most important characteristics in making selections. (Scott, 1975, p. 118)

Gulf officials requested Scott not to quote the manpower figures they provided him with in his report, feeling that it is dangerous to require by legislation or contract a fixed percentage of natives in an operation, or to evaluate a native employment program solely or even principally in terms of the numbers of natives employed that it achieves. Scott writes (1975, p. 9) "a substantial percentage of Gulf's total personnel (including management) at the site

are native, and a substantial percentage of these are northerners from north of Prince Albert." He writes that 17 workers have to date (September, 1975) been hired from the Athabasca area for the production phase, according to Placement Services in Uranium City. Six of these were previously involved in the construction phase. Four are mill operators, and the remainder are operators at the mine.

It has been a policy of Gulf from the outset not to employ natives as labourers, since they know natives to be very sensitive to the common pattern of giving them only unskilled, low-responsibility, low paying work. Accordingly those hired went into training immediately in equipment operating jobs, including supervisory positions. From the outset they were paid salaries equivalent to those of newly hired more experienced equipment operators. Gulf maintains that previous education and experience, with the exception of some English language competence are not very important in the selection of likely candidates for training. Only about half of the natives employed have had previous industrial experience, special training or even academic education. None has had more than grade 4 education, while few had had more than Grade 1. Scott does not provide more specific information on the educational or experience background of those employed.

Gulf reports that initially the rate of advancement of the native northerners who lack previous experience has tended

to be slower than for non-natives. However they have tended soon to catch up, and once trained they often make better employees than southern non-native and native employees with longer employment histories. One Gulf official feels that this is due largely to the fact that competing in the southern labor market often results in Indians acquiring negative work habits and attitudes, and erosion of their pride in work.

The aspect of the operation where the training and employment of native people without special skills is particularly successful is in the open pit mine, as equipment operators involved in mining and transporting ore to the stock-piles until the mill and concentrators begin operation a bit later. The employees at the pit are predominantly native, and one official's evaluation of a native pit crew is superlative - he would be willing to compare their performance with that of any crew in Canada. Native northerners have also shown excellent capabilities in supervisory capacities and promotion of more native operators to such positions is anticipated.

Working co-operation between native northerners, native southerners and southern whites has been excellent. The company's policy of hiring natives on an equal footing with non-natives is carefully explained to all new employees, and those who are bothered by this are told to look for work elsewhere. Casual observation of the mine workers at meals, in the pub, and during off hour activities show that whites



and natives tend typically to form separate groups. However there has not been any apparent overt hostility or resentment between natives and whites. Relations with foremen and supervisors, native and white alike, are judged to be good.

Of the 17 men from the Athabasca area initially hired by Gulf, four are no longer with Gulf. One was fired for intoxication in camp, and two for repeated failure to show up for the flight back to camp after the "long break" at home. The fourth found another job in his home community. Terminations have also occurred in the white component of the work force, involving both resignations and dismissals. Comparative statistics for the native and white components of the work force are not available.

*Worker Satisfaction with the Work Arrangements.* According to a Northern Municipal Councillor, northern native employees are very happy with the system. He states it is a source of pride and incentive to be equipment operators, where pick-and-shovel jobs were the only ones native Athabascans could generally obtain in mining prior to working for Gulf. Prospective employees and their community members and representatives were involved in working out the 7-day rotating shift, and it seems that after a few months' trial, they are still content with the arrangement and happy to return to the job when their shift comes up, following weeks-out. (Scott, 1975, p. 13)

A similar response was reported by J. S. Gunn, the Commissioner appointed to make recommendations after Gulf applied for permission to operate the mine according to the unorthodox rotation schedule which we have described above. In the course of his inquiry, Gunn visited the mine which was already in operation, toward the end of January, 1975, and interviewed all 50 of the non-management employees who were working there at the time. Some had been working in one capacity or another for four months. Gunn reports that all of those interviewed expressed their complete satisfaction with the work schedule and the overall employment conditions and living conditions they were experiencing. Not one complaint or objection was heard. The married workers, who were in the majority, reported that their families were happy with the arrangement. A majority of the employees said that if the rotation plan should be abandoned in favor of a "company town", they would seek other employment. (Gunn, 1975, pp 15, 16).

Unfortunately, Gunn does not distinguish between the native and white employees in his report. However it seems clear that all of the native workers, as well as all of the white expressed their complete satisfaction with the work rotation arrangements.

Scott devotes some space to the sociocultural impact of the employment on the settlements from which the northern natives come. Most of what he says is really relevant only

to the impact of sudden, high paying employment on these communities, rather than the impact of rotation employment. The only problem that he really deals with is liquor consumption. He notes that there is some difficulty in men not showing up for transportation to the mine after a "long break" which appears to be associated with drinking patterns during the week off.

Generally, income from Gulf and other employment (chiefly provincial govt. roads and housing employment) has contributed to high alcohol consumption levels in the Athabaskan communities, and Gulf has received some phone calls from upset wives. Planes are often chartered to bring in booze from Uranium City, as it is not available locally in the smaller communities.

Gulf officials and local community representatives recognize some problems need to be met and contended with in the communities if employment of individual residents is not to suffer. A local representative isolates a couple of associated facts as being central here - half of the people now employed from Uranium City to Black Lake with Gulf, unaccustomed to \$1000-plus monthly incomes, have no previous experience with banking or saving, and with the exception of Uranium City, there are no banks in the communities themselves. Cheques are cashed locally at the Bay, and men are walking around with \$500 in their pockets, often spending it on booze, gambling, etc. In contrast, there are some who are accumulating savings.

Gulf, in consultation with the Northern Municipal Council, L.A.C.'s, chiefs and councils of bands, is looking at some sort of follow-up program to involve workers and their families, by which problems can be discussed and dealt with,

including those of money-management. It is hoped that banks will co-operate by extending services to Fond du Lac, Stony Rapids and Black Lake.

A Northern Municipal Councillor notes that considerable changes in traditional economic and social patterns are having an impact on the community. In the days when most men trapped for cash, they would leave the home community as early as July and not return until Christmas, leaving once more in January until the spring. Consequently, there were only two or three months in the year when men and much of their families were in the communities. As increasing numbers of men work for housing, roads, or for Gulf, more individuals are spending more time in the communities than previously. (Scott, 1975, p. 17)

One possible pressure toward excessive consumption of alcohol, which Scott describes, is the expectations respecting redistribution of wealth which are typically found in hunting-gathering societies. He suggests that under the very recent conditions of highly paid wage employment by some members in traditionally oriented communities, a primary commodity for visible and rapid redistribution of wealth may be alcohol. This is not, of course, peculiar to rotation employment.

Conclusion. The information which we have presented above, though far less complete than one would have wished, contains not even a hint of disadvantageous consequences of



the seven-seven rotation pattern for the individuals employed, their families, or their communities. The ill effects for the community which were noted relate to the consequences of sudden increases in income in such communities where it is unprecedented and where there are no pre-existing patterns or expectations as to how this sudden wealth is best spent, much less best invested. But the only alternative to this type of problem would be either to pay natives at a lower pay scale than whites, or to refuse to employ them, and both of these alternatives are obviously unacceptable, on many grounds.

The information on the operation of the rotation arrangements at the Rabbit Lake Mine do provide some interesting clues as to how to maximize the prospects for successfully implementing a new work rotation program however. It is noteworthy that Gulf appears to have created an atmosphere of trust in the communities it has dealt with, and its willingness to accept some responsibility for consequences of employment of native northerners beyond the worksite seems to meet with positive responses from northern workers and communities. Early and close contact and communication with community members and representatives is essential if a commitment to provide maximum employment opportunities to native northerners is to be realized.

A willingness of the company to adapt its operation to the sociocultural situation of native northerners must be part of any serious effort to employ local people. The potential

dividend should be attractive for any company - a local community-based population is apt to be the source of more permanent, eventually better qualified employees than a non-local labor force.

Scott suggests that greater flexibility with respect to employees showing up for shifts might be built into a commute system through the creation of a labour pool. In the opinion of one DNS official at Uranium City, if a sufficiently large labour pool was created so a man might miss a shift from time to time to go hunting, trapping, or whatever, the long-term permanence of the community-based labour pool could still more than off-set the increased cost of duplicating training efforts for some positions. (Scott, 1975, p. 21) The labor pool concept might also result in a more egalitarian distribution of employment earnings to members of a community. This could alleviate the disequilibrium produced by gross inequalities in private income which traditional relationships in native bands never evolved to handle, a one-sided flow of wealth from the more to the less prosperous.

A final important hint that Scott offers, is found in an appendix to his report. He notes that native communities are frequently composed of two or three factions, typically polarized on issues related to "traditional" or "progressive" responses to various opportunities and issues that may arise. Where men are hired for rotational employment in ignorance of

their factional membership it is likely that those hired will be discouraged to see good friends and relatives, whom they can work with, turned away, while others are hired with whom studied social avoidance is maintained. When this happens, the new employee is deprived of the social support which he had counted on, and which he typically must have, if he is to cope well with the new situations and the unaccustomed stresses that rotation work, at unaccustomed tasks and in isolation from home, imposes.

By contrast, when only members of a single faction are hired, the men provided on this basis will of course be "confidantes" of the same faction. They have similar aspirations, support each other, and apply pressure to individuals in the group who jeopardize their image as good employees and neighbors, hence their collective pride and ambitions. This occurs in a manner very similar to the way behaviour is regulated in the community - individuals who meet with disapproval face the possibility of social exclusion, or at least lessened social prestige. (Scott, 1975, p. 28)

It is immediately apparent that this approach violates the usual universalistic (hire all, and only those who are qualified, or who show the best promise of success) criteria for employee selection, and so may at times be impossible to implement. However it must be pointed out that our concern here is with the hiring of native workers who are in various stages of transition from traditional to more modern outlooks

and forms of social organization. Maximum success will only be achieved where it is possible to adapt procedures devised for "modern Canadians" to fit the situations of natives who frequently live in a very different social and phenomenological world.

### Summary and Conclusions

The following points appear to be significant from the material we have presented on the mine operated by Gulf Minerals Canada at Rabbit Lake, Saskatchewan.

1. The work is performed by rotating work crews. Each crew works seven, twelve hour days, with an hour off for a hot, mid-shift meal. Thereafter each crew member is returned home and his time is his own until he is again returned to work seven days later.
2. From the start, Gulf Minerals has been committed to hiring a large number of native workers for the production operation.
3. In the process of recruiting native workers, Gulf officials approached Indian bands on reserves within about 200 miles of the Mine in order to discuss employment opportunities. Their approach was open, and very sensitive of native hopes and concerns, and as a result, relationships



characterized by mutual feelings of trust and responsibility appear to have been established between the company and the native bands.

4. Gulf policy from the outset has been not to employ natives as laborers, since they know natives to be very sensitive to the common pattern of offering them only unskilled, low responsibility, low paying work. Indians who were hired were immediately placed in training for equipment operating jobs and supervisory positions.

5. Gulf has proceeded on the assumption that it could effectively train Indians for semi-skilled and responsible positions who had little or no formal education and little or no relevant experience, and after less than a year of operation Gulf officials felt that this assumption had been justified on the basis of the performance of the illiterate men, lacking prior experience who were now performing satisfactorily at least, and frequently beyond the standard expected of white operators.

6. Working co-operation between native northerners, native southerners and southern whites has been excellent, no doubt in large part because the company's policy of hiring natives on an equal footing with whites is carefully explained to new employees and those who find this difficult to accept are told to look for work elsewhere.

7. As of August or September, 1975, turnover of northern natives appears to have been low. Of the 17 initially employed, three were fired, one for drinking and two for repeated lateness in reporting back to work after the long break, and one quit to accept other employment in his home settlement. Turnover among white employees appears to have been equally high.

8. There is evidence that this employment has resulted in increased alcohol consumption, at least in part because of (1) unprecedentedly high incomes earned, and (2) the continued existence of traditional expectations that surplus income, of whatever kind, will be shared.

9. Neither Scott, nor Gunn (1975) the Commissioner appointed to make a recommendation in connection with Gulf Minerals' application for the seven and seven work rotation schedule, were able to discover any worker dissatisfaction with the seven and seven work rotation schedule, at all. By contrast, numbers of workers said they would look for employment elsewhere if it were abandoned in favor of relocating their families to the mine site.

Conclusion. There are two possible contraindications to continued rotation employment in the material we have considered - the indications of lateness on the part of some native workers after their long break, and the evidence of

increased consumption of liquor in the home settlements of native workers. The first, we feel, is inevitable during a transition period for many of the northern natives because they have not experienced steady wage employment before. Further, the incidence of the problem appears to be relatively modest, according to the information available, and accordingly it may be hoped that this problem will tend to gradually disappear. The second appears, from the information available to us, to result from increased availability, and unequal distribution of income in the settlements, rather than from rotation employment per se.

Accordingly, no indications of the unsatisfactoriness of a seven days at work and seven days at home have emerged from this consideration of the information available to us on the work rotation arrangements at Rabbit Lake Mine in Saskatchewan.

## CHAPTER V

### Fourteen Days at Work and Seven Days at Home: Exploration Employment with Gulf Oil Canada

#### Introduction

During the summer of 1972, Gulf Oil Canada negotiated a rotation employment scheme for Inuit residents of Coppermine, N. W. T. with the Settlement Council in Coppermine. A description of the briefing, negotiating, and orientation procedures which were followed has been published by Hobart and Kupfer (1975) and there is no need to repeat these details here. Suffice it to say that these steps were conscientiously carried out with every respect for the autonomy and the interests and concerns of the local people, with every effort to facilitate understanding between natives and southern whites, and to insure fair, non-discriminatory treatment of the native workers. These efforts paid off to the extent that the community has been very well satisfied with its relationships with Gulf, and the latter has been generally well satisfied with the performance of its Coppermine workers.

The Coppermine workers were hired under exactly the same wage, work day and rotational arrangements as hold for its southern Canadian white employees. In both cases the workers are flown from their homes to the base camp or the drilling rig to which they are assigned. They work for 14



days without a break, working 12 hours a day during the November to May winter employment season. They receive "time and a half" for overtime after the first 40 hours of work each week. At the end of this period they are flown back to their homes for a seven day "long break", following which they are expected to report again to the airport or airstrip for transportation back to the worksite. Southern white workers who failed to report back and who did not have a valid "excuse" were dismissed. The practice with Inuit workers at this point has been much more lenient, recognizing that they have not acquired the motivations and attitudes prerequisite to such consistently dependable work performance, and that their needs to provide country food for their families through hunting justify special treatment. The company has tried to get Inuit workers to inform their foremen prior to their departure for home, when they anticipate missing a work period. Many of course have failed to do so, especially during the first employment year, and the fact that most of the men were employed in unskilled laboring positions, and that an "Expediter" in Coppermine contacted the men prior to the arrival of the plane taking them to the work sites, and made substitutions as necessary, made these failures far less consequential among Inuit, than they would have been among white workers. During the three years since the onset of the employment program Gulf has attempted to tighten up its expectations at this point, with the result that the dependability

of workers in giving prior warning, and in consistency of reporting back to work, has improved somewhat.

The following data on the effects of this 14 day work rotation program are available.

Attitudinal data from most of the men participating in the program the first year

Attitudinal data from the wives of most married men participating the first year

Attitudinal data from some of the children of men participating the first year

Various data on the work performance of the men during the first year

Attitudinal data from some of the men and some of their wives participating in the program the second year.

Work performance data on men employed during the second and third years of the program

Information on the consequences of this employment in the form of data on wage income, on liquor consumption, on alcoholic violence, on illnesses among small children, and on law violation patterns during the second and the third year of the program

In the pages which follow we shall briefly present the relevant information available for each of the three years, and follow these with a statement of the conclusions that can be drawn.

## The First Year of the Program: Reactions of the Coppermine Workers

About one half of the male labor force in Coppermine, 55 in all, were employed by Gulf at some time during the 1972 - 73 work season, and during the summer of 1973, we were able to interview 48 of them. In this section, we shall first describe the characteristics of the workers and then review the data available to us on the reactions to the employment program of the workers.

The 55 men who were employed by Gulf Oil and its contractors during the winter of 1972-73, ranged in age from about 18 to 60 years. Twenty-seven per cent were under 25 years of age, 31 per cent were aged 26 to 35, 23 per cent were between 36 and 45, and 19 per cent were over 45 years of age. Three-fourths had children, numbering from one to eight. Only ten had but one or two children, while one-third of the men had at least five children to date. Thus over half of the married men had six or more mouths to feed at home.

Of the 48 men for whom information is available\*, 28 had had no schooling at all. Of the remainder, 7 had had no more than three years, 11 had had between four and seven years, and 7 had had more than seven years. Eighteen men had had some kind of special job training the largest number, 7, as heavy duty equipment operators; 30 had had none.

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\* No information is available in the remainder of this section on five men who had left the settlement prior to the beginning of this study.

Thirty one of the 48 for whom we have data had trapped full-time, 13 of them within the last 2 years. Ten had trapped between three and five years ago and 8 had trapped more than five years ago, while 17 had never trapped full-time. Of those with trapping experience, 8 had had no more than 5 years of experience while 9 had had at least 12.

In terms of paid employment, 26 had never worked at anything except laboring work, and we suspect that some of the remainder may have exaggerated the level at which they were employed. Eighteen of these latter had operated trucks, fork lifts, bulldozers or other heavy equipment. The remainder had had other kinds of semi-skilled, and in one case, skilled, employment. No fewer than 16 had had their longest employment experience working on the D.E.W. Line. Among most of the men, however, employment experience had been very spotty. In response to the question, "How many months have you been steadily employed in the last 5 years?", 29 men answered, "None". Five men had had no more than 18 months employment, and only 9 said they had worked for at least 3 years.

The available data make slightly difficult an accurate assessment of the time these men actually worked for the Gulf contractors because of some contradictions in data we had to work with, but such information is available for 53 of the employees. Eleven men (about 20 per cent) worked for no more than 4 weeks; 20 men worked from 5 to 8 weeks, 9 men worked from 9 to 12 weeks, and 13 men worked at least 13 weeks.



Our interview data show that the Inuit workers had a very favorable reaction to their rotation work experience. Thus all said that they felt that the employment program was a good thing for Coppermine, primarily because of the income that it brought into the community. When asked if they would like to work for Gulf again the following season, 81 per cent said they certainly did and all but one of the remainder said that they would probably like the employment again. Only one said he did not want to. In reply to the questions, how long did they want to work the following season, 90 per cent said they would like to work as long as possible.

The data which are most relevant to the question of an optimum rotation interval were obtained in response to the question asking whether they would prefer to work "three weeks in camp with one week in Coppermine and earn more money, or two weeks in camp with one week at home just like last winter, for the same money, or two weeks at work and two weeks at home with less money?" Fifty-nine percent of the men said they would prefer the schedule involving three weeks at work, and none said they would prefer the last alternative. When asked why they made the response that they did, the opportunity to increase their earnings was the reason given by the majority of those choosing the first option.

Of course there were some sources of dissatisfaction. In order to probe these we asked the workers how they felt about various aspects of their work experience.

Their responses to the questions about work, camp and transportation are summarized in Table 5.1. Anyone familiar with the Inuit tendency to avoid criticizing or disparaging anyone or anything, may well be somewhat suspicious of these statistics indicating general contentment. We grant the justification for this attitude, despite our efforts to minimize this tendency by hiring an interviewer who was Inuit, and who had never been employed by Gulf and thus, should have been perceived as neither favourable or unfavourably disposed toward the employment program. The data in the table show that the workers were generally most critical of the flights, which were long, crowded and uncomfortable, and of their free time, and least dissatisfied with the food and with their fellow Inuit workers. We would tend to conclude that despite the

TABLE 5.1

Reactions to Various Aspects of the Work Situation by Coppermine  
Workers at the End of the First Work Season

	Liked Very Much	Liked A Little	Indif- ferent	Disliked A Little	Disliked Very Much	Number of Respondents
While you were working, how did you feel about:						
Your work activity, what you did on the job	24%	65%	9%	2%	0	43
The bosses who told you what to do	34%	60%	4%	2%	0	43
Other Inuit workers	45%	53%	2%	0	0	43
Other white workers	34%	55%	11%	0	0	43
Food on the job	76%	24%	0	0	0	43
Your free time in camp (non-work time)	21%	56%	14%	7%	2%	43

TABLE 5.2

Things "Most Liked" and "Most Disliked" by  
Coppermine Workers at First and Second Work Camp Experiences.

Things Liked Most	First Camp	Second Camp	Things Disliked Most	First Camp	Second Camp
Work activity	20%	12%	Work activity	2%	0%
Bosses	2%	6%	Bosses	2%	6%
Inuit workers	13%	6%	Inuit workers	0%	0%
White workers	2%	0%	White workers	0%	6%
Food on the job	5%	12%	Food on the job	0%	6%
Free time	0%	0%	Free time	2%	0%
Flights to camp	2%	0%	Flights to camp	5%	6%
Nothing, all the same	56%	62%	Nothing, all the same	87%	75%
Number of respon- dents	41	16	Number of respon- dents	41	16

probable influence of a "speak no evil", norm, that these data do validly reflect substantial satisfaction with work, bosses, and fellow workers of both races, as well as with food, etc.

The workers were further asked "Which of these

things (listed in the table on page 129), did you like best at the 1st camp you worked in . . . at the second camp?".

The responses to the first question and the second question are found in Table 5.2.

It is apparent from these responses that the workers were willing or able to single out few aspects of their work situations as notably good or notably bad. This may be either because they found it difficult to speak disparagingly of any aspects, or because they indeed found all aspects of the work reasonably acceptable. We suspect that while both of these factors may well have been at work, in view of their pay and camp amenities, a majority of them did indeed find all aspects quite acceptable. The responses indicating "things liked most" have plausibility, since food, fellow Inuit workers, and work activity were the most frequently mentioned. Moreover, cross-tabulations show that work activity was more frequently mentioned by skilled workers and also by older laborers who had had their share of less pleasant and/or remunerative work. This again argues for the relative validity of the responses.

We sought to assess the workers' reactions to separation from home and family by asking them two questions. The first was "While you were working for Gulf, how did you feel about: separation from wife; separation from children?" They were asked to indicate where they "liked (it) very much", "liked (it) a little", "didn't care", "disliked allittle", or "dis-



liked very much". Of those married, no fewer than 45 per cent reported that they liked the separation from their wives "a little", 42 per cent said they "didn't care", and only 4 men, 11 per cent of those responding said that they "disliked it a little". None said he disliked it very much.

The pattern of reactions to separation from children was very similar: of those with children, one said he very much liked the separation, one third said they liked it a little, 54 per cent said they "didn't care" and 4 men, 11 per cent, said they disliked it a little.

The second question was: "Men working away from home often worry about things. How much did you worry about (each of the following)?" The list of worries, and the men's responses are found in Table 5.3.

These responses show that a majority of the men had concerns about the welfare of their wives, their children, and their relatives during their absence, but for most these concerns were not felt to be troublesome.

Finally, the workers were asked, "What changes would you like to see to make the job better?" It seems significant that only five of the 43 respondents to this question had any suggestions to make at all: two suggested easier work, and one each suggested cleaner work, higher pay, and more considerate or understanding supervisors.

TABLE 5.3

Responses of Coppermine Workers to Questions  
Dealing with Worries Experienced While at Work

Specific Worry	Response			
	Worried Very Much	Worried a Little	Didn't Worry at all	Number of Respondents
Something happening to me (accident or death)	2%	23%	75%	42
Something happening to my wife (accident, etc.)	3%	50%	447%	34
Something happening to my children	3%	57%	40%	35
Something happening to other relative	7%	43%	50%	42
Kids get into trouble without father	11%	45%	44%	35
Wife get into trouble	8%	37%	55%	34

In sum, while workers did acknowledge some sources of dissatisfaction and some worries, and had some suggestions for training and orientation programs, it is very clear that they responded very favorably overall to the Gulf employment program.

### Reactions of Wives to their Husbands' Employment.

The 34 married women who were interviewed ranged in age from just under twenty to fifty-five years. Twelve women were no more than 30 years old and 10 were over 50 years. They had been married from less than a year to over 25 years. Five wives were married eight years or less; fourteen wives were married from 9 to 18 years, and fourteen wives were married 19 years or more.

In terms of formal schooling, the range was from no schooling to a maximum of eight years. Eleven women had no formal schooling; thirteen had from 1 to 3 years of schooling; five had from 3 to 6 years, and two had eight years. The average number years of schooling was two. Of those women with schooling, five had been outside in residential schools. The rest had their schooling in the settlement.

These wives were asked whether they had initially wanted their husbands to work for Gulf, eighty-two per cent (28 of them) indicated Yes, for sure, and only two women said No. The reasons listed for their desire to have their husband go to work for Gulf included 25 comments involving money or the goods that money could buy. Eight indicated that it was their husband's desire to work. The two women who objected noted two reasons: loneliness and that a community job was available for her husband.

When asked what they liked about the previous winter's

employment experience, all the women but one indicated the money brought in, and/or the things the money had purchased such as skidoos, food, clothes, etc. When asked what they did not like about their husbands working, 76.5 per cent indicated no dislike while six wives (17.6%) said that they were lonely. One was regretful that her husband had quit work too soon.

We inquired about the availability of meat during the winter while men were away at work. Some 71 per cent (24) of the women said that there was no shortage of meat while the remainder said that there was less meat than previously. Our informal interviews indicated that probably there was more meat in the settlement than there had been the preceding year. Certainly if shortages were experienced they were not serious and the extra money from the job was used to buy store meat.

The wives were also asked whether or not they would like their husbands to work for Gulf in the coming winter. About three-fourths (27) said "Yes, for sure", and 18 per cent said "Yes, maybe". Only one woman responded "No, for sure."

When asked why they felt this way, 71 per cent (24) gave money, or items to be purchased, as their reason. Two women (6%) indicated that their men liked to go.

To the question how long they would like their husbands to work, next winter, over 90 per cent (31) of the women said they wanted their husbands to work as long as possible. It is quite clear from the interviews that the women wanted their



men to work for Gulf and that their basic incentive was the economic benefits of the employment.

When asked about their choice among different work rotation schedules, 65 per cent of the wives (22) said they would prefer a three-weeks-at-work-and-one-week-at-home shift with more money; 27 per cent chose the two-and-one shift with the previous wage, and only one woman asked for a two-weeks-at-home- and-two-week-at-work shift which would have meant less money and more time at home.

Wives were asked about any troubles that were caused by their husbands being away. Some 94 per cent (32) indicated that they did not have any and none mentioned specific problems. When asked further whether they were worried or upset while the husbands were gone, 38 per cent (13) said Yes and 8 of the 13 said they suffered loneliness. Five of the 13 said they were fearful that their husbands might be hurt.

When asked whether or not having many Coppermine men go to work in the Delta was good for the settlement, all the women said it was good. Again, the two basic reasons for their feelings were money (56%) and improvement in opportunities for work (35%).

Finally the wives were also asked, "Are there any changes in the work program you would like to see, to make it better for you?". Five women said that they would like a change in the day on which men traveled to work, from Friday to Monday or Tuesday. The reason in every case was that since

the weekend was the heavy drinking period in the community, these women were fearful with their husbands gone, and thus would prefer postponement of their departure until after the weekend.

Assuming that the women were responding openly to the interviewers, and the consistency of their responses suggests that they were, it is clear that Gulf employment was seen as a positive benefit by the wives both before it started, while it was in progress, and in their anticipations of the future. There were some reported emotional and social costs for the wives, but basically they welcomed the employment because of the money it brought in and because of what that money purchased in an improved standard of living.

Reactions of the Children. In all, 35 children were interviewed - 15 boys and 20 girls. They ranged in age from 8 to 16 years. Twelve children were between the ages of 8 and 10; nine were between 11 and 13, and fourteen children were between 14 and 16.

When these children were asked whether or not they were happy about their fathers working for Gulf during the previous winter, 69 per cent (24) said they were, while 29 per cent (10) said that they were both happy and unhappy. Only one child said that he was unhappy about his father's work.

When asked to describe what made them happy about the experience, they mentioned the following reasons, most men-

	Number	Percent
Pop or candy	20	57
Clothing	16	46
Toys	11	31
Food	11	31
More equipment, guns	9	26
More money	7	20

tioning more than one reason.

Clearly, the children were responsive to improved material benefits for themselves as a direct result of the employment. Teachers and other whites in the community and our own observations confirmed that children indeed had more money than previously and that they also spent more. They were also better fed, had better clothes, and could engage in more recreational and social activities.

When asked about what things made them sad, 19 children mentioned one or more of the following, while 16 mentioned none at all.

Being lonely or missing their father	16
Worried about the family	1
More drinking and fighting at home	1
Could not do things with father anymore	1
Could not use equipment	1
Made mother sad	1

The children were then asked whether they wanted their father to work for Gulf during the coming winter. All 35 said Yes. When asked why, all the children mentioned money, and some noted the things money could buy such as toys, food, candy, pop, etc. The children were also asked whether or not they were proud to have their father working in the Delta. All but one (97%) said that they were.

Clearly, Gulf work is perceived positively by the children because it brought good things. Some teachers told us that many of the younger children identified the good things as coming from the Gulf plane and not from the store.

Our data seem to show that the immediate benefits of their fathers' job appeared to outweigh the children's sense of loss when he was absent from the home.

#### Conclusion: Reactions of Coppermine Workers and of their Families

It is clear from the interview data that we have reported that the rotation employment was very favorably perceived by almost all of the people interviewed. Some emotional price was paid by the workers, their wives and their children as a result of employment of the men and their absence from home for two week periods. Some men reported missing their families, and community participation, though some also report they enjoy being away from their families. Many reported worrying about their families, and many wives



and children report loneliness, and missing their husbands and fathers. However, this pattern of absence of a man from his home, frequently, for comparable intervals, has been the case in many families in recent years in Coppermine, as men went hunting and trapping. Thus it is not viewed by any but the youngest men who have had no such trapping experience as a particular hardship. As a result, the employment program is enthusiastically endorsed because of the money it brings in and the purchases and gratifications which the money makes possible. This is true of the men, the wives and the children. And the result is that a majority of the men, and a substantial majority of the women, expressed a preference for a "three and one" rotation schedule for the following winter, which would entail longer periods of separation, because of the yet larger pay cheques which would result.

This pattern is exactly what students of Eskimo life would expect. The harsh conditions of survival in the Arctic have resulted in a traditional culture which was adaptive, and expedient, oriented to exploitation of whatever new resources and techniques presented themselves, which have promise of improving the chances of survival or the comfort level of the people. The cost or toll exacted by the harsh environment, or by the new subsistence opportunities, were stoically accepted, particularly since they well knew that life and survival there was costly, under any circumstances. The employment program, generally, provided the Coppermine Inuit

with the most comfortable, least dangerous and most remunerative subsistence activity that large numbers of them had ever experienced. It is no wonder that they and their families generally seem entirely willing to put up with the costs and to revel in the prosperity which the employment program makes possible.

Moreover, the employment program gave uneducated or very young and inexperienced Inuit job opportunities and pay not available to them in Coppermine. Most positions there went to more educated or work-experienced men. Gulf employment provided attractive employment to men who in many cases had no monetarily remunerative opportunities at all and the responses we have reviewed reflect this fact.

#### Indicators of Coppermine Workers' Adjustment to the Rotation Employment Situation

There are three behavioral indicators of the workers' adjustment to the 14 days at work and 7 days at home rotation work they had experienced, (1) an index of work duration - the total number of weeks employed, (2) an index of work persistence - the date of termination of employment, and (3) an index of work dependability - the number and kind of interruptions of the work schedule recorded for each worker.

These behavioral indicators do not indicate as hearty a response to the employment opportunity as the attitudinal statements that we have reviewed, although it is not possible to clearly establish how much of the men's performance was under their control and how much was not. Thus with respect to work duration the median number of weeks worked was 8 during the first employment year. Ten men worked no more than four weeks and ten worked more than 12 weeks. Many of the workers could undoubtedly have worked longer had they wished, but many of those who were hired in February or March were forced to terminate by the end of the season.

The data with respect to work persistence are more clear: 19 not terminated by the Middle of March, 12 during the first two weeks of that month. Twenty-three men worked till the end of the season, but interpretation of this is difficult since we have no way of knowing how many of them may have been hired rather late in the season, in March perhaps. There does appear to be clear indication here of the difficulty which is experienced, no doubt particularly by those with much hunting and little or no employment experience, in staying on the job when the fine spring weather and the opportunities of hunting the seals basking on the ice, are powerful enticements.

Our data on work dependability, indexed by the number and kind of interruptions of employment shown in the worker's

record, show that 17 workers had unbroken (but perhaps short) work records. Eleven missed one or more work periods, but not successively, and seven missed two or more work periods in succession. The work of 10 was interrupted by illness. We suspect that some of the other unexplained missed work periods were in fact occasioned by illness of the worker or of a family member which was not communicated to the personnel office because of failure to understand that such should be reported, or because of communication difficulties.

Assessment of the significance of these behavior indicators must await comparison with other similar indicators.

#### Expectations of Coppermine People at the End of the Second Work Year.

During the 1973-74 season, 71 men from Coppermine worked for longer or shorter periods of time for Gulf. Of these 48 had worked the preceding year, and the remaining 23 had their first oil exploration employment experience during this second year. We sought to obtain interview data from all of the second year men, and from their wives and some of their children. However most of them were not interested in discussing the matter with the local Inuit interviewer whom we had hired, and we were able to obtain only 16 returns from the Coppermine men, 18 from their wives, and 18 from their children.



### Reactions of the Workers

The sixteen second year workers for whom we have completed interview forms were evenly divided between the less skilled lease hands and swampers, and the more skilled roughnecks, drivers and equipment operators. Twelve had worked for at least five months, and only three had worked less than four months. Nine worked until the first of May. Twelve reported that they worked until they were laid off for lack of work, one was terminated after he was hurt on the job, one because he was sick and one quit because of family matters.<sup>1</sup> All of the men reported that they would have liked to work longer had circumstances not prevented them from doing so.

Our data show that generally the experienced workers reacted very favorably to their second year of oil exploration work. To the broad question "Do you think employment of Coppermine men on the Delta is a good thing for Coppermine?" all sixteen answered "yes". Nine gave as the reason the fact that it provided good earning opportunities, and seven said that it gave them the opportunity to work. When these men were asked "Which one would you like more: to work three weeks in camp with one week in Coppermine, and earn more money every month, or to work two weeks in camp with one week

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1. One worker failed to provide information on this item

in Coppermine like you did last winter and earn the same money every month as last year, or to work two weeks in camp with two weeks in Coppermine and earn less money every month than you did last year?" nine chose the first alternative of working a three and one rotation, and seven chose the second alternative of a two and one rotation schedule; About the same proportions of responses as were given by workers the previous year. None chose the third alternative. The reason given by those wanting a three week work period was the increased earnings they could thus make. Again satisfaction with the work situation is reflected in the absence of any wish to cut down the proportion of time spent at the work site. Finally to the question "Would you like to work for Gulf Oil again this winter?" all 16 men interviewed answered yes.

These men were asked a number of questions involving making comparisons of their reactions to the work experience during the 1973 - 74 season, with their reactions during the 1972-73 season. To the basic question "In some ways did you like working for Gulf better last winter than the earlier winter?" one half said "yes" and the other half said "no". Nine men failed to specify any "better" aspects, but of the seven that did, two each said they were on a better rig, they had better free time opportunities, they were working at a better job, and one said he was earning more money. To the question "Were there some things about working for Gulf that

were less good, or worse, last winter than the earlier winter?" all of the men answered "no".

Reactions to more specific aspects of the workers experience during the 1973-74 season with the 1972-73 season, were obtained by asking "Comparing last winter with the preceding winter, how did you feel about each of the following?" The specific issues, and the responses of the workers, are found in Table 5.4. The data in this table shows that no

TABLE 5.4  
Coppermine Second Year Workers' Comparisons of  
Various Aspects of Their Work Situations in the  
1973-74 with the 1972-73 Seasons

	Much Worse in 1973-74	Worse in 1973-74	About the same in 1973-74	Better in 1973-74	Much Better in 1973-74	N=
Your work activity, what you did on the job	0%	7%	57%	29%	7%	14
The bosses who told you what to do	0%	0%	79%	-21%	0	14
Other Inuit workers	0	14%	79%	7%	0	14
Other white workers	0	0	86%	14%	0	14
Food on the job	0	0	93%	7%	0	14
Your free time (non-work time) in the camp	0	7%	79%	14%	0	14
The flights between Coppermine and the camp	0	7%	79%	14%	0	14

aspects were rated "much worse" in the 1973-74 season. Moreover, only one aspect was rated "worse" in the second season by as many as two out of 14 men responding, and that aspect was "other Inuit workers". Generally the responses to all of the aspects about which workers were asked was "about the same", which was the response made by about four out of five men to six of the seven issues queried. In every case, more men said things were better in the second season than they were in the first. Moreover this should be evaluated in the light of the fact that there were very few complaints about aspects of the work situation made by workers interviewed at the end of the 1972-73 season, as we have seen. It is interesting that although the flights between Coppermine and the camp were improved by substitution of a DC-3 in the second season, for the Twin Otter that had been used during the first season, few men noted this as an improvement. Needless to say this change of equipment did not represent a dramatic improvement.

The men interviewed were asked which jobs they had worked at they liked best during the preceding (1973-74) season, and "Why did you like it best, what was it that you liked?" The most popular aspect was the boss, whom 40 per cent said they "liked a lot" and 60 per cent said they "liked a little" while no one responded "did not like". The proportions of responses to "the other workers" and to "the work activity, what you did on the job" were both the same,



29 per cent said they liked these "a lot", 71 per cent said they liked them "a little" and none said they "did not like" them.

Workers who had worked for the same contractor company during at least parts of the first two seasons were asked "Did you find you liked working for this company better, or worse, or the same, last winter as compared with the previous winter?" Of the 14 men who had had such experience, nine said they liked it better, one said it was worse, and four said it was the same. Of those who said it was better, four said they were earning more money, two said they were able to work longer, and one said he had a better job. Two did not respond. The one who said it was worse said there was "too much mud".

In order to prove reactions to separation from their families, the second year Coppermine workers were asked "comparing last winter with the previous winter, how did you feel about each of the following?" The issues which were probed and the responses received are found in Table 5.5. The data show that at least three fourths of the respondents said that they felt about the same both years. Very slightly, and statistically a few, more men did say they felt worse about separation from their wives, and separation from their children as compared with those who felt better about separation from wives and children. The reverse was true of their reactions to not being able to take part in

TABLE 5.5

Coppermine Second Year Workers' Comparisons of Their  
Reactions to Separation from Home in the 1973-74 with the  
1972-73 Season

	Much Worse 1973-74	Worse In 1973-74	About The Same	Better In 1973-74	Much Better 1973-74	N=
Separation from wife <sup>1</sup>	0%	15%	77%	8%	0	13
Separation from children <sup>2</sup>	0	17	59	8	0	12
Separation from friends and relatives	0	7	86	7	0	14
Not being able to take part in community activities	0	0	79	14	7	14

1. Three men had no wives.
2. Four men had no children.

community activities. In general we conclude from these data that these experienced men reacted to the separation experience in about the same way during their first and second employment years.

These second year workers were also asked "how much did you worry last winter, compared with the previous winter, about each of the following?" The areas mentioned and the responses to each area are found in Table 5.6

TABLE 5.6

Coppermine Second Year Workers' Comparisons  
of their Worries While Away From Home in the  
1973-74 with the 1972-73 Season

	Worried more in 1973-74	About the same both winters	Worried Less in 1973-74	N=
Something happening to me (accident or death)	7%	79%	14%	14
Something happening to my wife (acci- dent, illness or death) <sup>1</sup>	15%	70%	15%	13
Something happening to my children (accident, illness, death) <sup>2</sup>	0	92%	8%	12
Something happening to other relatives (accident, illness, death)	14%	72%	14%	14
Kids might get into trouble without their father	8%	84%	8%	12
Wife might get into trouble	0	75%	25%	12
1. Three men had no wives				
2. Four men had no children				

These data again show that at least 70 per cent said they  
worried about the same during the two work seasons, about the

possibilities listed. None of the worry issues shows a net increase in worrying during the 1973-74 seasons as compared with the 1972-73 season. Again we conclude from these data that these workers had about the same worry reactions during their second year as during their first year of employment.

At the end of the interview, the men were asked "are there any information programs which Gulf could put on for workers in Coppermine before they go to work in the Delta to help them understand the work they will be doing?" One fifth of the workers said "no" while the remainder said that there was. When asked to specify what kinds of programs, two thirds, six of the nine men who responded said that efforts should be made to brief employees as specifically as possible about the kind of work they will be doing at the rigs or the base camp. Two other men said the company could best plan the content of the briefing programs, and one man said that the men in the community should be informed about the kinds of specialized job training courses that were available.

It seems worth reiterating at this point that, although by the summer of 1974, a total of 71 Coppermine men had worked on Gulf Oil exploration work in the Delta for one or two seasons, still a sizable portion of the experienced workers who were interviewed felt that there was need to brief workers about the kind of work that they would be doing after they had been hired. There seems to be two important explanations of this failure of the well experienced men in the community to



brief their fellows. The first is that many of the Coppermine employees seemed not to understand the "game plan" of the larger work activity to which they were making a minor contribution. Thus they were ill equipped to explain their work meaningfully, in context, to their fellows. The second relates to a point of Inuit psychology, their reluctance to ask direct questions, or to impose information on another person which might have the implications of suggesting a course of action. The consequence of these two conditions is the conclusion that more and more frequently repeated orientation concerning various native-appropriate work opportunities in oil exploration needs to be provided to native communities which are being cultivated as possible labor supply sources.

Summary. The conclusions to be drawn from this review of evidence from interview records of the reactions of Coppermine workers to their employment experience are the same as those drawn the preceding year. In terms of their reactions to employment all felt it was a good thing. All said they wanted to work again the following winter, and the strength of their interest is further reflected in the expressed wish of a majority that they might work for three weeks before taking the long break, instead of the two weeks of work and one week at home rotation schedule.

In terms of reactions to separation from home and

family, most of the workers interviewed said they were indifferent to all aspects of the separation except for separation from the wife, and here the majority said they disliked it a little. With this exception the remainder usually said they disliked other aspects of the separation "a little". Most also reported that they "worried a little" or "worried not at all" about injury befalling themselves or to their loved ones while they were away from home at work. Similarly most of the second year workers interviewed reported that they were bothered by the separation, and they worried about injury to themselves or their families, to about the same extent that they had the previous year.

Reactions of the Wives. Completed interviews were obtained from 15 of the 38 wives of the married men who worked during both the 1972-73 and the 1973-74 employment seasons. These women were generally favorable to their husband's employment, though some mentioned distressing aspects of the resulting separation. Thus all of the women interviewed said they thought that it was "a good thing for this settlement for many of the men here to work away from home at oil work camps". All of the women said they wanted their husbands to work for Gulf the coming winter. One half said they would like for their husbands to work for three weeks with one week home, the rest saying they would prefer "two and one" rotation schedules.

Each of these three expressions was further probed by asking why they felt the way they did. To the first, 60 per cent said that it provided opportunities for work, and the remainder said to make money to support families. They explained their feelings in regard to the last two expressions above by saying that they wanted the husband to make money for the family in half the cases or that he liked to work or he wanted to work (27 per cent), while 10 per cent gave both of these reasons. Eighty per cent of the women said they had wanted their men to work for Gulf at the beginning of the 1973-74 season, 3 per cent said they did not, and 17 per cent said they did not know, no doubt reflecting ambivalence on this issue. Those who wanted their husbands to work gave as their reasons the money he would earn, the purchases this would make possible, and the wish of their husbands to work, in about equal proportion. The woman who did not want her husband to go mentioned loneliness as the reason.

A last indication of the general favorableness of these women to the employment opportunity with Gulf is seen in their responses to the question "How long would you like your husband to work during this coming winter?" All of the wives answered "as long as possible".

In response to the question "what did you like about your husband's working for Gulf last winter?" 13 mentioned the money earned and the things they had bought, one said she liked her husband's working because he wanted to, and four

mentioned both of these. When asked "what did you not like about his working for Gulf last year?" four women said the loneliness they had experienced without the husband.

The wives were asked "Did you have any troubles while your husband was away?" Only one woman answered in the affirmative. All of the wives were further asked "Were you worried or unhappy when your husband was away at work?" Six women said no, and 12 said "yes". Eight of the latter said they feared for their husbands while they were at work, and four said they were lonely. These women reported they were worried or unhappy about twice as frequently as did the wives interviewed at the end of the first work season. However when they were asked "Did you find that you were more worried or unhappy when your husband was away at work last winter than the previous winter?" ten said there was no difference, six said they were less worried, and only one said she was more worried. The only suggestion that we can make to help interpret these anomalous findings is that perhaps with so many men away from the settlement for two years running, the wives left behind may have been stimulated more to talk about their separation experience with each other, and thus to become more open in talking about it with the interviewer. The gradual increasing acculturation of the community would facilitate this as well.

In a number of questions these women were asked to compare their experience during the second with the first



year of their husbands' employment. In response to the question "did you find it more difficult to have your husband working away from home last winter than the previous winter?" all but one said there was no difference. The other said it had been more difficult, but did not elaborate when questioned. They were further asked "Did you find your children more difficult to handle while your husband was away this last year than the previous year?" The results reflect a rather even balance: four said "more difficult", three said "less difficult" and the remaining eleven said "no difference".

Another question asked was "Sometimes drinking causes troubles in a settlement. Were there more troubles in Coppermine from drinking last winter than the previous winter?" Again the responses are evenly balanced, with two reporting more trouble, two reporting less trouble, and the rest saying there had been no difference.

All of the wives were asked "Are there any changes in the work program you would like to see to make it better for you?" Four women made suggestions, three relating to the rotation arrangements. One wanted the rotation day changed to Tuesday, one wanted it changed so her husband could spend a month at work, and the other wanted her husband at home more, but still have him working. The fourth wanted work to be made available in the settlement.

In general it is clear that the reactions of these wives to their husband's employment were distinctly favorable.

The wives do suffer some inconvenience and some emotional distress as a result of their husband's absences from home, but not enough for them to wish that he would not take such employment, or even that he would work for only part of the season during the following winter. Their reaction might well be summed up in the feeling "It's a bit tough when he's away, but nevertheless I want him to work as long as possible".

Reactions of the Children. Interview schedules were obtained from 18 children of employees of Gulf contractors in Coppermine, eight boys and 10 girls. Thirteen were under 13 years of age and five were over that age. All were in school at roughly their appropriate grade level.

As we found at the end of the first employment year, the children interviewed expressed enthusiastic support for their father's employment by Gulf contractors virtually without exception. Thus to the question "Were you happy or unhappy to have your father working for Gulf last winter?" 17 children said they were happy, and one said both. Asked "What things made you happy" nine gave as a reason the money earned, and five each mentioned things bought, including food, clothes, candy, guns and equipment. When asked "Were you proud to have your father working in the Delta last year?" all 16 who answered this question answered in the affirmative.

Only three of the Coppermine children had fathers who had worked in both the 1972-73 and the 1973-74 seasons. These

three children were asked "Did you miss your father more when he was away last winter, than the first winter?" All replied it was the same both winters. They were further asked "Did your brothers and sisters miss your father more, when he was away last winter, than the first winter?" Two replied it was the same both winters and one said he was missed more last winter.'

It is apparent from the responses to the questions asked that, like their mothers, although the children do miss their fathers while they are at work, these feelings are not terribly strong, as seen in the wishes of all the children that their fathers obtain Gulf employment again the following winter.

#### Indicators of Coppermine Workers' Adjustment to the Second Year of Rotation Employment

Information available which is useful in assessing the adjustment of Coppermine workers to rotation employment during the second year of the Gulf employment program includes the same behavioral indicators used previously, and a number of ratings which foremen and work supervisors made of workers under their direction. The behavioral indicators include: an index of work duration (total number of weeks employed), an index of work persistence (date of final termination of employment), and an index of work dependability (number and kind of interruptions of the work schedule.

The ratings include ratings of total work performance, of ability to withstand the stress of work in the Arctic, of whether or not a worker should be selected for inclusion on a "first rate crew", of whether or not a worker was mentioned as having "strong points", and of his "camp citizenship".

Note that we are reporting here on all of the Coppermine men who were employed during the second year of the employment program, not just those who had been employed during both years.

Work Rotation. The data on work duration, number of weeks worked by Coppermine employees during the 1973-74 season, including both the 48 workers who had worked the first season and the 23 who had not, are found in Table 5.7.

TABLE 5.7

Number of Weeks Worked During 1973-74 Season  
by Coppermine Workers.

<u>Weeks of Work</u>	<u>Number of Men</u>
2 weeks or less	6
3 - 4 weeks	7
5 - 6 weeks	10
7 - 8 weeks	3
9 - 10 weeks	6
11 - 14 weeks	12
15 - 20 weeks	7
21 + weeks	11
No data	6
	<hr/>
Total	68



The median number of weeks worked by the men for whom we have data was 10 weeks. The median number of weeks worked by the Coppermine men during the 1972-73 season was 8 weeks. Thus the 1973-74 employment season witnessed a significant, if not a dramatic increase in the duration worked by Coppermine employees over the preceding season.

Information on characteristics of workers with long work duration show that long work duration is most characteristic of men in their working prime, aged 30 to 40, who have heavy family responsibilities, who often have no schooling or at most no more than four years, have a few years of trapping experience and have previous Gulf related employment.

Work Persistence. The index of persistence used is the date of final termination of employment of the Coppermine employees. These dates are as follows for the 62 employees for whom we have the data.

Date of final termination was during	Number of workers
December or January	2
February	3
First half of March	4
Second half of March	5
First half of April	7
Second half of April	9
Worked into May or later	32
No data available	6
	<hr/>
Total men	68

These data show that the median date of termination of employment for these Coppermine workers for whom data are available was the end of April. Less than one quarter (22 per cent) quit before the first of April. During the 1972-73 season the median date for termination of employment was about April 15, and one quarter had terminated their employment by the 7th of March. Like the work duration data presented above, these data show a significant increase in work persistence. Indeed we may argue that it is indeed a surprising increase in view of two important facts. The first is that with the employment of no less than 68 men out of the very small community of Coppermine, Gulf was certainly scraping the bottom of the manpower barrel in that settlement. Accordingly this record of work persistence, running contrary to the traditional Inuit interests in spring travelling and spring sealing, is impressive. The second is that the 1973-74 season was a very exceptional trapping year, with top market prices for white foxes coinciding with a peak year in the fox cycle. Twenty-nine trappers from Coppermine earned over \$1000 each from trapping between May, 1973 and May 1974. The fact that only two employees quit during the months of December or January to engage in this profitable activity is impressive testimony to the strength of interest in Gulf related employment by the Coppermine workers.

An analysis of the characteristics of the most persistent workers show that persistent Coppermine

employees were older men over forty years of age, married, with four or more children with either no trapping experience or at least five years experience. In terms of education they either had no schooling or more than four years. They were undifferentiated in terms of previous Gulf related work experience. Thus it would appear that persistent workers are often the oldest men who have known the most hardship. It is also noteworthy, however, that they were employed in the most remunerative jobs: they included all of the drivers and operators and 75 per cent of the roughnecks, as well as 67 per cent of the swamper and 57 per cent of the roustabouts.

Work Dependability. Work dependability was indexed by the number of interruptions of employment shown in the worker's record. Reliable data on kind of interruptions were not available. These data show that 47 men had uninterrupted work schedules; and three more had company authorized interruptions, to attend safety courses, etc. Thus a total of 50 men had no unauthorized interruptions, representing 75 per cent of the Coppermine workers for whom the data were available. During the 1972-73 season there were only 17 workers, 35 per cent of the 48 for whom we have data, whose work was uninterrupted. The improvement here over the previous year is most impressive.

Analysis of the characteristics of workers who experienced no absenteeism during the 1973-74 season shows that

dependable workers tended with disproportionate frequency to be roughnecks, under 26 years of age, who were single without children, with little or no trapping experience, with at least five years of schooling, and with previous experience working for Gulf contractors. It is apparent, looking at these data, that it is the older married man with more dependents who most often took brief leaves from work. This suggests further, that these leaves may have been "justified" by conditions at home or by the need to hunt for meat, in a certain proportion of cases.

Supervisors' Ratings. Four items of data are relevant to an analysis of the characteristics of high performance workers: supervisors' ratings of the workers' work performances, their nominations of workers for inclusion on a first rate crew, their comments on the strong points, and their ratings of workers' ability to withstand the stress of working in the Arctic. We shall consider each of these in turn.

Our data show that when supervisors were asked "How well does this man perform on his job?", 12 per cent of the Coppermine workers were rated "one of the best" or "excellent", 32 per cent were rated "good", 46 per cent were rated "average" and 8 per cent were rated "below average". Analysis showed that workers rated above average in work performance by their supervisors tended more often to be married men with children, aged 26 to 30 years, with six or more years of trapping



experience and one to four years of schooling. Those who worked last year for Gulf were rated slightly higher than those who had not, but the differences were slight. Drivers and equipment operators were most often highly rated (57 per cent) followed by swampers (44 per cent) roustabouts (41 per cent) and roughnecks (38 per cent).

In response to the question "How well does this man stand the stresses and strains of work in the Arctic?", 22 per cent of the Coppermine workers were rated "one of the best" or "excellent". Forty-four per cent were rated "good", 28 per cent were rated "average" and 6 per cent were rated "below average". Workers who were rated highly on this criterion were more often aged 26 to 40 years, married, with children, who had had six or more years of trapping experience, and had worked for Gulf during the first season. Swampers were most often highly rated (38 per cent) followed by operators (29 per cent) roustabouts (15 per cent) and roughnecks (0 per cent)

When asked "if you were picking a first rate crew, and could hand pick the men to work on this crew, would you select this man?" supervisors answered "yes" for 60 per cent of the Coppermine workers. The characteristics of workers nominated by their supervisors for inclusion in a first rate crew were similar to those above. Those nominated were more often married with one to three children, aged no more than 30 years, with either no trapping experience or more than five

years such experience, and with a few years of schooling. Those who had worked previously for Gulf operations were slightly more frequently nominated than those who had not - 63 per cent vs. 50 per cent. Again drivers and operators were most frequently nominated (71 per cent) followed by swamper (62 per cent), roustabouts (60 per cent) and roughnecks (40 per cent).

Supervisors were also asked to identify the "strong points, if any, in terms of working on this job" of workers. "Strong points" were mentioned for 30 per cent of the Coppermine workers.

Finally, supervisors were asked: "How good a 'camp citizen' is this man: being reasonably friendly, co-operative and considerate of others, not causing friction or trouble?" Twenty-four per cent of the Coppermine men were rated "One of the best" or "excellent", 29 per cent were rated "good", and 40 per cent were rated "average" and 7 per cent were rated "below average".

The data on the characteristics of workers for whom supervisors mentioned strong points, must be taken with some reservations, we feel, because we have evidence that some supervisors were more willing to take the time to write down strong points than were others. Bearing this in mind, it becomes apparent that the picture of those with strong points is similar to that for well adjusted workers we have noted earlier. Our data show that there are few distinguishing

characteristics of workers rated as good camp citizens. Generally they were slightly more frequently middleaged, married with children, with little education and with trapping experience. There were no differences in terms of previous employment by Gulf contractors. Swampers were most frequently rated as good citizens (81 per cent) and roughnecks were least frequently so rated (25 per cent).

Summary. There may be reservations concerning the validity of the responses which workers who were interviewed made to questions probing how they felt about various aspects of the work situation and about separation from home. However the data we have presented on work performance duration, persistence and dependability, and on the supervisors' ratings of these men, provide global, but nevertheless convincing indications of their emotional adjustment to the work situation and to work imposed separation, and of the satisfaction with their employment which they experienced. That workers worked longer, better, later and with fewer interruptions during the 1972-73 season is surely the most impressive of indications of their emotional adjustment and job satisfaction.

The detailed data on work duration and work persistence which we have presented in this section show that the performance of the Coppermine workers during the 1973-74 season reflected a noteworthy improvement over the preceding season and in terms of work dependability their improvement was

most impressive. Although we do not have comparably detailed indications of work performance for the 1972-73 season, we are confident from discussions with six supervisors who had worked with the Coppermine employees during these two winters, that their work performances improved impressively during this period as well. This was particularly true of the swampers and the roughnecks. The frequently good performances of Coppermine workers employed as swampers during the 1973-74 season is particularly noteworthy in view of the generally unsatisfactory performances of Coppermine swampers during the preceding season.

The results of the crosstabulation analyses presented in this section, show certain consistent and certain inconsistent patterns. Generally workers under 26 years of age were less satisfactory, particularly when they were single, than older, married workers, except in terms of absenteeism. Those best adjusted to the work situation were married, with children, with no more than four years of schooling, and with some trapping experience who had previously worked for Gulf contractors and held jobs as drivers, operators or swampers, or less frequently, as roughnecks. However these men did tend to have higher absenteeism records. Younger men, under thirty, received the best job performance ratings. Those aged 30 to 40 years had the best work duration and camp citizenship records, and those over 40 years of age produced the best work persistence records.



Comparison of the results of these analyses with those from the study of the 1972-73 season show a number of strong similarities in pattern. Both analyses show that the most satisfactory workers from most perspectives are those in the 26 to 40 year old category who have usually had no more than 4 years of schooling, who are married, with children, who have some specialized job training, have had considerable travelling experience, but not recently, who were most often employed as operators. The next best group is the older, uneducated, unskilled laborer group which often had had little recent permanent employment experience and often yet had difficulty with English. Men in this category were usually employed as lease hands during the 1972-73 season. During the 1973-74 season many of those who had worked well the preceding year were upgraded to swamper positions. The young, well educated workers who stood out in last year's study as poor in work performance as reported by their superiors and in work duration, yet showed this poor work duration pattern. However it is noteworthy that supervisors reported them in increasing numbers to be able and efficient workers, and their work durations, while yet sub-standard, were very much improved over those of the first Native Employment season. In terms of persistence and dependability they yet showed themselves to be the least satisfactory. However their striking improvement on the basis of only one year of experience gives excellent promise of what may be expected of this group in the future.

Data which we have for Southern white workers demonstrate clearly that it is precisely the young white workers who were also least satisfactory.

In conclusion, it should be emphasized that the data which we have examined have shown that workers who had a previous year of employment experience with Gulf contractors during the 1972-73 season had more satisfactory work performance and longer work duration records than those who had not had this previous experience. Lest this seem an obvious point, every employer has had experience with workers who profit from work experience by learning more effective ways of evading work. That the reverse has been the case among the Coppermine employees augers well for their future as a satisfactory and effective labor source.

TABLE 5.8  
Income Figures for Coppermine, N. W. T. During the  
Nov. 1 - May 30 Employment Season  
for 1972-73 through 1974-75

Employment Season	No. of Men Employed	Total Wage Earnings	Average Earnings	Men Earning over \$5000	Men Earning over \$10,000	All other Sources of Income*	Total Income
1971 - 72	0	0	0	0	0	\$218,400	\$218,400
1972 - 73	54	\$162,600	\$3,000	9	-	\$218,400	\$381,000
1973 - 74	71	\$273,700	\$3,835	21	2	\$365,600	\$639,300
1974 - 75	67	\$329,300	\$4,920	28	10	\$351,800	\$681,100

\* Including earned income and transfer payments.

## The Impact of Rotation Employment on Coppermine

Presentation of material on the impact of rotation employment on the community of Coppermine was delayed until this point because it is important to try to identify the immediate impacts and the longer run consequences of this change in employment activity in the community. Data on the work performances and on the attitudes of (some of) the workers, their wives and their children are available only for the 1972-73 and the 1973-74 seasons. Thus baseline data are available for the year preceding the beginning of the employment program, and for all three employment seasons, excepting only the one just ending as this is written, during the spring of 1976. In the pages which follow, we shall first present data on the economic impact of the community, and thereafter data on alcohol consumption, on drunken violence, on indications of neglect of young, pre-school children and on law violations.

**Economic Impact.** The relevant data found in Table 5.8 show that during the first year, the employment program the cash flow into the community increased by 75 per cent during the 6 months of the November 1 to May 1 employment season. During the second employment season the cash flow into the community again increased very substantially, by 72 per cent, as a result of a 69 per cent increase in earnings from Gulf employment, and of very substantial returns from trapping that year, amounting to \$125,300. During the third



employment season Gulf earnings again increased, by 21 per cent. However earnings from sale of furs were down, with the result that cash flow into the community increased by only 7 per cent which, we suspect, was somewhat less than the increase necessary to offset the effects of inflation during the first year.

The information available to us strongly suggests that this increased buying power was spent "sensibly". (Hobart and Kupfer, 1973). Thus about 30 per cent of the 1972-73 Gulf earnings were spent on capital equipment used in harvesting the fish, fur and game resources of the land. The following season we do not know how much of the money spent on capital equipment may have come from trapping earnings, since we know that some of the Gulf employees, with the help of their relatives, run traplines. In any case, money spent on capital equipment comprised 34 per cent of total Gulf earnings, and an additional 5 per cent was spent on household furnishings. Almost nothing was spent on such furnishings during the first employment year. We do not have information on this type of expenditure for the 1974-75 employment season.

Alcohol Consumption. In Table 5.9 are found data on the value of liquor mail order imports into Coppermine from the Yellowknife Liquor Store during the November 1 to June 1 period for 1971-72 through 1974-75. The data are reported for the month of May since it seems obvious that

Table 5.9

Value of Liquor Imports into Coppermine, N.W.T. during Nov. 1 -  
May 30 Season, for 1971-72 through 1974 - 75\*

Year	Value of Inuit Liquor in Current Prices	Imports into Coppermine in 1971-72 Prices	Percentage Change Previous Year/Current Year
1971-72	\$9200	\$9200	---
1972-73	\$12,070	\$12,070	+29%
1973-74	\$11,600	\$10,400	-12%
1974-75	\$10,960	\$8900	-15%

Estimated for Inuit only; see text

NURSING STATION RECORDS OF VIOLENCE INFLICTED WOUNDS  
1971-72 through 1974-75 Sessions

1<sub>F</sub> = female, 1<sub>M</sub> = male.

<sup>2</sup>S = single, M = married, W = widowed.

3 Age in years.

imports during this month would continue to reflect the impact of Gulf employment which terminated the beginning of the month. The data are for estimated Inuit consumption, only, total import values having been reduced in proportion to the proportion of whites in the community, and are reported in constant dollar terms. We are confident that this is an accurate reflection of the liquor consumed by the Inuit in the community since travel arrangements did not give returning Coppermine workers access to the liquor store in Inuvik, and since there is very little travel between Coppermine and towns or cities which do have liquor stores.

The data show that during the first employment season (1972-73) there was a 29 per cent increase in the value of liquor imported into Coppermine. During the second employment season the value of liquor imported declined 12 per cent as compared with the preceding year, and the next year it declined again by 15 per cent. The result was that during the third employment season, the value of liquor imports was in fact slightly less than it had been during the last year prior to the onset of the employment program.

**Drunken Violence.** Data on violent woundings committed under the influence of alcohol, for the winter, spring and summer seasons, for 1971-72 through 1974-75 are found in Table 5.10. Data for May through July are included here since it was felt that such stresses as may have built up during the winter employment season might continue to be



TABLE 5.11

RESPIRATORY INFECTIONS AMONG INFANTS<sup>1</sup> AND SMALL CHILDREN<sup>2</sup> - COPPERMINE

November 1971 - July 1975

1971-72				1972-73				1973-74				1974-75			
		Small Children		Infants		Small Children		Infants		Small Children		Infants		Small Children	
Month	N	Inci- dence	N	Inci- dence	N	Inci- dence	N	Inci- dence	N	Inci- dence	N	Inci- dence	N	Inci- dence	N
Nov.	15	.68	13	.12	4	.24	15	.11	5	.38	8	.07	7	.54	17
Dec.	7	.37	22	.20	7	.37	15	.12	9	.69	11	.10	3	.25	14
Jan.	4	.19	14	.12	12	.67	23	.18	12	.92	12	.10	6	.40	16
Feb.	2	.11	12	.10	7	.44	7	.05	10	.71	15	.13	3	.20	7
Mar.	6	.32	8	.08	2	.13	22	.17	10	.90	35	.33	12	.80	38
Apr.	9	.47	24	.23	17	1.13	67	.51	2	.18	17	.16	6	.40	16
May	15	.79	22	.21	8	.67	24	.18	16	1.45	20	.18	5	.29	20
June	22	1.10	25	.18	5	.45	28	.21	2	.20	13	.12	7	.39	11
July	16	.80	30	.22	9	.69	31	.23	4	.40	30	.28	8	.42	32
August	15	.79	55	.41	10	.77	23	.17	3	.25	29	.25			
Sept.	18	1.06	46	.35	5	.31	9	.08	7	.54	29	.28			
Oct.	15	.88	24	.18	7	.41	19	.16	11	.85	30	.29			

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1. Aged under one year  
Age e f igh e v

TABLE 5.12

DRUNKEN ASSAULT CASES TRIED BY  
 JUSTICE OF PEACE COURT  
 FROM NOVEMBER 1970 - AUGUST 1, 1975

	1970-71	1971-72	1972-73	1973-74	1974-75
November	1			1	
December	1			2	
January	2	2			
February					
March				1	1
April				1	2
May			2		
June					
Subtotal	4	2	2	5	3
July	1		1	1	2
August				3	N/A
September		1		4	N/A
October			2		N/A
TOTAL	5	3	7	13	5

reflected in violent behavior during this period. The index of violent woundings used was all cases which required suturing, or X-raying to determine if there were skeletal fractures. The data show that the total number of drunken violent woundings increased from 10 during the 1971-72 period, to 18 during the 1972-73 period, and thereafter declined slightly to 16 in 1973-74 and to 15 during 1974-75. Particularly concernworthy is the fact that violence against women, to be expected in the case of men who may have brooded about their fidelity during the men's absence from home, more than doubled during the first year of employment. However the 1973-74 data show a decline in the number of female victims, and the 1974-75 data show a further decline to about the pre-employment level. At the same time there was some increase in the number of male victims. However the general pattern is similar to that for liquor consumption, in that the first year of the employment program saw a jump in the number of violent woundings, which has been followed by gradual declines.

In Table 5.11 are found frequencies and rates of respiratory infections among infants and small children in Coppermine, for the 1971-72 through the 1974-75 employment years. These data are here utilized as indicators of child neglect, in order to establish whether a consequence of the employment program has been an increase in child neglect among Coppermine parents, mediated by the alcohol

which Gulf earnings has purchased. Generally, though the figures show considerable instability, a consequence of the small sample sizes, there are absolutely no indications of an increase in the respiratory infections of either infants or pre-school children during the years since the onset of the employment program.

Data on the number of drunken assault cases which came before the Justice of the Peace in Coppermine during the 1970-71 through the 1974-75 employment years is found in Table 5.12. The data are summarized for the employment period, and for 12 month periods. Two patterns are apparent: there is considerable instability in the data, due to the small population base, and there are indications of an increase in these cases during the 1973-74, and perhaps during the 1972-73 years, as compared with the preceding years. It is noteworthy that for the 1973-74 year the increase came primarily during the months of August and September. Again, though the small frequencies make any statement tentative at best, it appears that there was a decline in drunken assault cases during the 1974-75 employment year.

In summary, these data have shown that Gulf Employment has very significantly increased the volume of cash flow into Coppermine as contrasted with the last pre-employment year. One consequence was a substantial increase in volume of liquor imported into Coppermine during the first employment season. However it declined during the following



two years to pre-employment years. The data on violent woundings and drunken assaults show a similar pattern although the recent decline has not been so great as in the case of liquor imports. There are no indications in the respiratory illness data presented of any increase in parental neglect of small children.

## CHAPTER VI

### Fourteen - Seven Day Work Rotation: Reactions of Delta Workers and Comparison of Coppermine, Delta, and White Worker Responses

#### Introduction

During the 1973-74 employment season, Gulf Oil Canada and its contractors employed 49 men from the Mackenzie Delta in its hydrocarbon exploration operations in the vicinity of the Delta. As compared with the Coppermine workers whom we have discussed, they were typically more acculturated, and they were working very much closer to their homes, often within 50 miles. They may also have been a less attractive class of worker. They were certainly younger and less socially mature than were the Coppermine men: about half were under 26 years of age, and 62 per cent were single. The very strong demand in the Delta for labor during that season may well have meant that the better workers were able to obtain permanent employment, an option which is available to very few men in Coppermine.

Interviews were obtained from 34 of the Delta workers who had worked for Gulf contractors during the 1973-74 season. Twelve of these worked in various capacities for Carn Transport Company. The work situation of these men was quite unlike that of the other employees, in that they were not on regular rotation schedules. Most were based at the Swimming

Point Base Camp and generally they worked 12 hour days. However they were permitted to work as many days in succession without taking days off, as the work load and their own inclinations permitted. Work performance data are available for most of these Delta workers.

The Delta workers were a younger and less socially mature group than the Coppermine workers: almost half were under 26 years of age, including 21 per cent aged no more than 20 years, and only 21 per cent were over 35 years of age. Surprisingly, 53 per cent were single, with 38 per cent married and the remainder widowed or divorced. All but one of the married men had children, half of them four or more.

This was a better educated group than the Coppermine workers as well: almost half (47 per cent ) had eight or more years of schooling, and only 15 per cent had no more than four years. Two thirds had had residential schooling experience, and almost half of these had had seven or more years in such schools. Moreover, over half had had special job training: six had had roughneck training in the South of Canada, five had had training as heavy duty equipment operators, and seven had had a variety of other courses, such as janitorial training.

One half had never had any trapping experience. Of those who had, four had trapped for one or two years, six for three to eight years, and five for at least nine years. All had had some previous work experience. Fifty-six per

cent had worked as truck drivers and the same proportion said that they had had roughnecking experience. One quarter said they had worked as heavy duty equipment operators, and three had worked as mechanics or carpenters. Their longest work experience was with the DEW line (20 per cent), the Federal or Territorial Governments (18 per cent) or the settlements (15 per cent). One half had never held a job for as long as six months, while one quarter had for at least two years. Further, one half had worked less than a total of 6 months in the last five years, while no more than 30 per cent had been steadily employed for more than two years during this period.

Thus, in view of the youthfulness, the lack of exposure to the hardships of a trapper's life, and the dearth of steady employment experience, it is perhaps not surprising that no less than 56 per cent worked for Gulf contractors for no more than two weeks, and only 28 per cent worked for more than five months. Forty-five per cent of these men worked as laborers, roustabouts, or swampers, thirty-three per cent worked as roughnecks, and 21 per cent worked as drivers or equipment operators.

Reactions of the Workers to the Work Experience. Our data for Delta workers show that in many ways they reacted less favorably to their work experience with Gulf contractors than did the Coppermine workers, although their reactions were



yet distinctly more favorable than otherwise. To the broad question "Do you thing that it's a good thing for this settlement for men from here to work for oil companies away from home?", twenty men said "yes" and two men said "no", as contrasted with the completely favorable response of the Coppermine workers. Those favoring it gave as their reasons that "it provided an opportunity to work" (over half), it enabled them to make money (40 per cent) and it provided the opportunity to learn job skills (one man). The two who opposed it objected because it separated husbands and wives, and it disrupted community life. Again, to the question "Would you like to work for oil companies again this winter?" 25 men said "yes, definitely", five men said "yes, I think so", two men said they were not sure, and one each said probably not or definitely not. When they were asked "Which one would you like more, to work three weeks in camp with one week at home, and earn more money every month, or to work two weeks in camp with one week at home like you did last winter, and earn the same money every month as last year, or to work two weeks in camp with two weeks at home and earn less money every month than you did last year?" 37 per cent of the respondents chose the first alternative, (as compared with 57 per cent of the Coppermine workers), 53 per cent chose the second alternative, and 10 per cent chose the third alternative (Coppermine workers 0 per cent). Those wanting three and one rotation schedules gave as their reason the oppor-

tunity to earn more money. Those advocating the two and one rotation generally said that was a long enough work shift to stay away from home. One each of those advocating a two and two rotation schedule said they got tired working without breaks, and they did not like the isolation from women.

During the course of their interview these Delta workers were asked the same more detailed questions about their reactions to various aspects of their work experience as were the Coppermine workers. Their responses to specific questions concerning their feelings about work, camp life, and transportation are summarized in Table 6.1. Again, although a majority of the Delta workers reported that they liked every one of the aspects of the work situation concerning which they were queried, they were less favorable in their reactions than were the Coppermine workers. This is probably to be expected, given the greater education, greater sophistication, and youthfulness of these Delta workers, and the many more job opportunities available to them, by contrast with the Coppermine workers. One of the two exceptions was in regard to the attitude toward the work activity, where 20 per cent more Delta than Coppermine workers said they liked this aspect. The explanation for the differential lies in the fact that 70 per cent of the new Coppermine workers, as compared with only 45 per cent of the Delta workers, worked at laboring jobs. The other exception had to do with flights between home and camp. Here we are sure that the Coppermine

TABLE 6.1

Feelings of Delta Workers About Various Aspects  
of Their Work Experience

	Liked very much	Liked a little	Didn't care Indifferent	Disliked a little	Disliked very much	N=
Your work activity, what you did on the job	30%	35%	16%	6%	10%	31
The bosses who told you what to do	31	24	31	3	10	29
Other Inuit workers	61	16	13	3	0	29
Other white workers	47	23	23	3	3	30
Food on the job	74	19	6	0	0	31
Your free time (non- work time) in the camp	37	30	18	7	10	27
The flights between your home <sup>1</sup> and the camp	52	17	26	4	0	23

1. Eleven men made no such flights.

workers responded less favorably because their flights were very much longer and more tedious, and less of a novelty, as compared

with the experience of the Delta workers.

The Delta workers were further asked "Which of these things (listed in the table above) did you like best, and dislike most, at the first camp you worked at?" Their responses are found in Table 6.2. The data show that food, free time activities and work activities were most often mentioned as most liked, but almost one third said they liked nothing best. Among the Coppermine inexperienced workers almost half (43 per cent) said they liked the work activity best, followed by the food, and only 14 per cent said they liked nothing best. Similarly more of the Delta workers than Coppermine new workers said there were aspects of the work experience they disliked most, the most mentioned being the bosses, other white workers, and free time in camp, each mentioned by two men.

TABLE 6.2

Aspects of Work Experience Mentioned As  
Most Liked and Most Disliked by Delta Workers

	Liked Most	Disliked Most
Nothing	30	61
Your work activity, what you did on the job	15	0
The bosses who told you what to do	0	11
Other Inuit workers	5	00
Other white workers	0	11
Food on the job	30	0
Your free time (non-work time) in camp	15	11
The flights between home and the camp	5	6
Number of respondents	20	18



The separation of men from their families which this employment entailed is not different from the separation which was required by most of the earning opportunities available to perhaps half of the population in Aklavik and Tuktoyaktuk during the past two decades. Trapping certainly required such separation once families settled down in communities so that their children could go to school. So does summertime employment on boats traveling up and down the Mackenzie River as does employment at camps for sports fishermen, and the employment aboard ships sailing the Beaufort Sea and in oil exploration work which has slowly been increasing during recent years. The only exception was employment on the DEW line after the construction phase was completed, and here it was the whole family which was separated and isolated from the rest of the community. Thus the family separation experienced by Northern workers employed in oil exploration is not as unique, statistically speaking, as it is for Southern Canadians. At the same time there is a much larger element of compulsion for Northerners, because of lack of the range of alternative employment opportunities which are available to whites in the south.

The Delta workers were asked "While you were working for Gulf how did you feel about the following?" The issues dealt with and the responses received are found in Table 5.3. These data show a strong pattern of dislike of the separation experience very much stronger than that we have found for the Coppermine workers, and quite comparable with what we have found for the

TABLE 6.3

Feelings of Delta Workers About Various Aspects  
of Separation From Home and Community

	Liked Very Much	Liked a Little	Didn't Care In different	Disliked a Little	Disliked Very Much	N=
Separation from wife <sup>1</sup>	0	8%	25%	25%	42%	12
Separation from child- ren <sup>2</sup>	0	0	12	12	76	8
Separation from friends and relatives	4	0	48	26	22	27
Not being able to take part in community activities	0	0	58	27	15	26

1. Twenty-one men had no wives, one did not respond.

2. Twenty-one men had no children, or did not respond.

Southern workers, in fact. This clearly demonstrates what we have said before, that the Delta workers are much more acculturated to Southern ways of living and Southern feelings and reactions, than are the Coppermine workers. Thus whether it is that the Delta workers feel the separation from family and community more keenly than do those from Coppermine, or whether they merely report their feelings more honestly or more strongly, we cannot say. Both would be much more characteristic of

TABLE 6.4  
 Worries Mentioned by Delta Workers

	Worried Very Much About This	Worried a Little About This	Didn't Worry At All About This	N=
Something happening to me (accident or death)	18%	41%	41%	29
Something happening to my wife (accident, illness or death)	65	29	6	17
Something happening to my children (accident, illness, death)	73	18	9	15
Something happening to other relatives (accident, illness, death)	33	46	21	24
Kids might get into trouble without father	64	21	15	14
Wife might get into trouble	66	20	14	15

Southern whites than of the traditional Inuit. It is noteworthy however, that the Delta workers say they dislike separation from friends and relatives, and dislike not being able to take part in community activities in substantial numbers, much more so than is true of white workers. The fact that so many of the young unmarried men said they disliked separation from friends and

relatives, and being unable to take part in community activities, would seem strongly to imply that following marriage they will dislike separation from wife and children more intensely, unless events cause them to come to adjust to, and accept such periods of separation. The latter seems distinctly unlikely.

Those interviewed were also asked "How much did you worry about the following?" The possibilities mentioned, and the responses received are found in Table 6.4. The data in the table show that the proportions worrying about "something happening to me" are about the same as for Coppermine and for Southern workers. However the proportion reporting that they worried about the health of their wives, and their children, and about their wives getting into trouble are very much higher than among either the Coppermine workers or the Southern workers. For example, the proportion of Delta workers "worrying very much" about "something happening to my wife" was 65 per cent, as compared with 3 per cent of the Coppermine workers<sup>1</sup>, and 27 per cent of the Southern workers. Those "worrying very much" about "something happening to my children" were 73 per cent, and 30 per cent respectively, while those "worrying very much" about "wife might get into trouble" were 8, 66, and 2 per cent for Delta, Coppermine and Southern workers<sup>2</sup>, respectively. What the source might be of

1. Data from the Summer, 1973, survey of Coppermine workers reported in Inuit Employment.

2. It should be emphasized that the Southern workers whom we were able to interview were in a sense "veterans" as we have noted earlier in this report. Thus this comparison is somewhat unfair. On the other hand, the Delta workers in camp were only a relatively few miles from their homes and families, and thus were much more accessible to them, in comparison with the Southern workers. The comparison of Delta and Coppermine workers is of course quite fair.



this reported greater tendency to worry among the Delta workers, we do not know. One possibility is that the residential schooling experience which was imposed upon two thirds of the Delta workers, when taken in conjunction with the tendency on the part of their parents and the residential school staff to ignore the worries and fears of the school children engendered by the separation, has left them hyper-sensitive to separation experiences, and very prone to worry when they are separated.

In response to the question asked of the married men "How do you think your wife feels about your being away from home when you are working for Gulf oil?" seven of the eighteen married Delta men did not respond. Two of the remainder said their wives were indifferent, three said they disliked it some, and one said she hated it, while five said they did not know. The latter probably reflects a more traditional Inuit reluctance to speculate about the feelings of another person. Similarly to the question "How do you think your children feel about your being away from home when you are working for Gulf Oil?" five of the ten responding men said their children were indifferent, four said they disliked it some, and one said they did not know. Nine men answered the further question "Does it bother you very much that your wife and children are sometimes very lonesome for you?". Seven said "it bothers me a lot" and two said "it bothers me a little". What interpretation should be placed on the reported reactions of wives and children is not clear, both because the samples of respondents are quite small and incomplete, and because of indications of the traditional Inuit reluctance to

speculate about the feelings of others. However the reactions of married men to the feelings of their wives and children are reported to be strong, and this picture is in perfect accord with the data on worries about families presented above.

Toward the end of the interviews the workers were asked what changes they would like to see to make the job more attractive to them. The following suggestions were made: higher wages (four), more considerate bosses (two), and one each: work closer to home, cleaner work, inside work, more attractive free time activities, free telephone calls home. Respondents were further asked "Are there any information programs which Gulf could put on for workers from this settlement before they go to work for Gulf to help them understand the work they will be doing?" Thirteen men responded by making suggestions, including five who suggested information on training for a better job, four suggested providing newly employed workers with specific information on what they will be doing, two mentioned confusion about pay cheques, and one information on what workers will need at camp. In response to a further invitation to make comments, suggestions, and observations, three each said they would like to take specialized job training and they like the work, and one said he worried about his wife when he was away from home.

Perhaps the most important point to come from these volunteered comments and suggestions is that there is yet a dearth of information about work in the oil fields, even in communities where a few men have had employment with oil companies, and where,

in the case of Tuktoyaktuk, there has been an Imperial Oil Base Camp on the outskirts of the settlement for several years at which local men have been employed. The information needed apparently relates to detailed information about the work activity available, the specialized job training opportunities that are available and that are relevant to various positions, and the conditions of camp life.

#### Adjustment of the Delta Workers to the Work Situations.

As with the Coppermine workers, indices of the adjustment of the Delta workers to the rotation work in which they were employed include information on their work duration, work persistence, work dependability, work performance as assessed by supervisors ratings, and camp citizenship.

The work duration of the Delta workers can only be described as very low: no fewer than 56 per cent of the 31 for whom we have data worked no more than two weeks. Thirty per cent worked more than one month, and only 15 per cent worked more than two months. Generally, it was the older, less well educated, married men, who had had special job training, who worked for longer periods of time.

Only nine men, 40 per cent of the 23 for whom we have data, stayed on the job until the first of April. Like those who worked for longer periods, they tended to be older, less well educated, married, with special job training.

Data on work interruptions show that 91 per cent of the Delta workers for whom we have data had no interruptions

in their employment record. The explanation for this, of course, is that most of them quit after a single rotation, and only one third of the total worked more than two rotations. The evidence is that those who "stuck it out" were quite dependable in returning to work after their "long break" at home.

The information on work performance includes supervisors' ratings on the quality of their performance, their ability to withstand the stresses of work in the arctic, their good points and their desirability as members of a "first rate work crew". Thirty per cent of the Delta workers for whom the first rating is available were rated above average, and 53 per cent were rated below average by their supervisors. Predictably, those rated average or above in work performance were older, less well educated, married, with trapping and special job training experience.

In terms of their ability to withstand the stresses of work in the Arctic, one quarter were rated above average and 56 per cent were rated below average. Those rated above average had exactly the same characteristics noted in the previous paragraph.

Only one Delta worker was singled out as having "strong points" by his supervisor. However nine were described as qualifying for membership in a "first rate crew". These nine again had the same characteristics we have noted above: older, less well educated, married, with trapping and special job training experience.



The best ratings were received by the Delta workers on "camp citizenship". Thirty-one per cent were rated above average, and only 19 per cent were rated below average. The characteristics of those rated above average are different from the above noted pattern. Good camp citizens were distinguished only by their low level of education.

Generally, the data we have reviewed in this section show that a substantial majority of the Delta workers hired for rotation employment by Gulf Oil Canada proved to be unsatisfactory, primarily because they quit after the first work rotation. Those who were above average on most of the indices were older men who were less educated, with special job training, and on a number of the indices they were men who had oil trapping experience or well.

Reactions of the Delta Wives. Interviews were obtained with only 11 wives of Delta workers, or about two thirds of the wives of the married workers.<sup>3</sup> This is a distinctly younger group of women than the Coppermine wives: none were over 35 years of age, and while six were aged 31 to 35, two were under 20 years. Nevertheless six had been married at

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3. We do not know exactly how many of the 49 Delta men who, to our knowledge worked for Gulf contractors at one time or another during the 1973 - 74 season were married. The information supplied by the contractors was incomplete at this point for 11 men, but on the basis of interview information this number was reduced to 2. According to our information, 22 men were single, 18 men were married, and one was widowed. No information is available for eight men. Accordingly we were able to obtain interviews from about two thirds of the married Delta workers.

least nine years, and only one was married less than two years. Eight had four or more children, two had two children and one had no children. They were much better educated than the Coppermine wives, six having had at least six years of schooling and only one had had none. Seven had had residential schooling experience.

Because we shall note some distinct differences in the attitudes of the Aklavik women from those living in Tuktoyaktuk, it is important to note some differences in their characteristics. The Aklavik women were more frequently older, married more years with more children and more residential schooling.

The reactions of the Delta women to their husbands employment were generally distinctly less favorable than were the reactions of the Coppermine women, and this was more true of those from Aklavik than of those from Tuktoyaktuk. One general reason for this, we suspect, is that during the last 15 years Tuktoyaktuk has experienced more hardship than Aklavik. It is also a community that has been more intensely involved in trapping than Aklavik. Thus the circumstances of oil field work were seemingly more acceptable to the Tuktoyaktuk women, because more familiar, than to the Aklavik women.

To the question "Do you think it is a good thing for this settlement for many of the men here to work away from home at oil work camps?" eight women said "yes" and three women, all Aklavik residents, said "no". Those who said "yes" gave as reasons the money earned (two) and the oppor-

tunity to work (three). None of those who said "no" gave any reasons. To the question "Would you like your husband to work for Gulf this coming winter?" nine said "yes", and two, both Aklavik residents, said "no". The reasons given for wanting husbands to work were the money to be earned, and the wish of the husband to work, while both who said "no" mentioned loneliness as the reason. Despite the negative feelings, however, the strength of the financial incentives is seen in responses to the question "How long would you like him to work for Gulf this coming winter?" All nine who said they did want their husbands to work responded "as long as possible". Similarly in response to the question dealing with alternative rotation schedules, eight women said they would prefer three and one rotation schedules, two said they would prefer two and one rotation schedules and one said she would prefer a two and two rotation schedule.

To the question "Did you have any troubles while your husband was away?" five women, including all of those from Aklavik, said "yes", and six answered "no". The three who detailed troubles, all from Aklavik, reported they experienced a shortage of meat. The other two gave no further relevant information, but four complained about the poor quality of their housing. In response to the question "Were you worried or unhappy when your husband was away at work?" eight, including all of the Aklavik residents, said "yes", and three said "no". The occasions for distress included worrying

about the husband while he was away (seven) and loneliness during his absence (two).<sup>4</sup> More Aklavik women said they worried about their husbands, while more Tuktoyaktuk women said they experienced loneliness.

These women were also asked "Did you have less meat from hunting to eat while your husband was working for Gulf, because he could not go hunting so much?" Seven of the women, including equal proportions of Aklavik and Tuktoyaktuk women, said "yes", and three said "no", while one did not answer. We should note here that one suggested change in the work program was that the men should not work during the hunting season. This is a distinctly higher proportion of "yes" responses than has been given by the Coppermine wives. It is relevant to note that while cariboo have become more plentiful in the Delta area in recent years as compared with 10 or more years ago, they are not as continuously or as dependably available as they are in the vicinity of Coppermine. We are certain that these seven "yes" responses do not represent privation at all because they were occasioned by the absence of men who were bringing home very large pay cheques. It is probable that some families have experienced less abundance of meat than in some preceding years. It also seems probable because of the symbolic significance of abundant meat supplies to Northerners, that ambivalence about

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4. One woman mentioned two worries.



the absence of husbands while they are working in oil exploration camps might well emerge in complaints about reduced meat supplies.

When asked about changes in the work program they "would like to see, to make it better for you", two women suggested changing the rotation schedule to three weeks of work and one week at home, one requested work for her husband in town, and one suggested that men not be employed during the hunting season. At the end of the interview further comments were volunteered by three women. One reiterated her wish for her husband to work in town and two said they were glad that their husbands were not fired because of unauthorized absences from work.

In summary, it is clear that the Tuktoyaktuk women show a pattern of rather enthusiastic acceptance of oil field employment for their husbands, despite the emotional costs of the resulting separation, very similar to that of the Coppermine wives. The Aklavik women, on the other hand, express much more reluctance and dissatisfaction. It seems probable that the differing conditions and recent history of the two communities have made the Aklavik women less tolerant of the kind of frequent and prolonged absence of men from home which oil field employment requires.

Reactions of the Delta Children. Interview schedules were obtained from only seven children of employees of Gulf

contractors in the Delta, four boys and three girls. Six were aged nine to fourteen years of age and one was over fourteen.<sup>1</sup> All were in school at roughly their appropriate grade level.

Like their mothers, these children expressed slightly more ambivalence as the absence of their fathers from home while they were working, as compared with the Coppermine children, but they were yet notably enthusiastic about their father's employment. Thus to the question "Were you happy or unhappy to have your father working for Gulf last winter?" five of the children said they were "happy" and the other two said they were both. When asked "What things made you happy?" three mentioned the money that was earned, and three mentioned things that had been bought. One child said he had been saddened by missing his father. Five of the children said they wanted their fathers to work for Gulf the next winter, and six said they were proud to have their fathers working in oil employment.

Effects on the Community. It is not possible to make any statements about the economic effects of Gulf related employment on the three communities from which the Delta

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1. Note that very few of the Delta employees for whom we have any information had been married long enough to have children aged 9 years or older.

workers were recruited, because these workers comprised a very small proportion of the total labor force in their communities. We can only note that a total of 49 workers were employed from these communities, and they earned a total of about \$219,000. We must infer, in terms of the motivation of the workers, and the proportion their earnings comprised of the total settlement cash flow, that the employment was most significant for Aklavik. The disinterest in work of most of those briefly employed suggests that the employment was least significant to Tuktoyaktuk at least to the largely unmarried men hired from there. However from the perspective of relative volume of cash flow, it was clearly least significant for Inuvik.

#### Summary.

Our data show that the Delta men report much stronger dislike of the separation experience, and much stronger tendencies to worry about families while they are absent, than the Coppermine men report. It is of course the older married men who more frequently report worrying. Nevertheless, most of these Delta workers report that they want to work for Gulf contractors the coming winter, because of the money they can earn.

The Delta wives also report somewhat more dislike of the separation experiences than do the Coppermine wives. However with very few exceptions they too wish their husbands

to again obtain employment during the coming winter. A sizable proportion of them do report having suffered meat shortages resulting from their husband's employment. We suspect that this may in fact be true, because caribou are not so dependably available in the Delta vicinity as they are in the area of Coppermine. Thus those men from the Delta who go out hunting during their long breaks may at times not find caribou to kill. Moreover, Carn Transport, which hired a number of the Aklavik men, does not have a system of regularly spaced long breaks, and encourages the men to stay at work just as long as they want to. Thus their families, in particular, may well have run short of meat supplies. This suggests the desirability of considering a ceiling on the number of days that men with family responsibilities might work, without taking a "long break" at home. Since the complaints about meat shortages came primarily from the Aklavik women we suspect that this is an important reason. However since the earnings of men at work are so high we can be quite certain that the families experience not hardship, but rather the less frequent availability of the traditional and preferred foods.

Although the Delta children reported missing their fathers they were unanimous in their expressions of approval of their father's working on Gulf projects, and in wishing them to work again the following year. Their reasons are largely materialistic, the money and the purchases which the employment makes possible.



Response to the Work Situation  
A Comparison of Coppermine, Delta,  
and Southern White Workers

During the summer of 1974, at the time that the interview and supervisor rating data were collected for the Coppermine and the Delta workers which were reported on above, similar data were collected for southern white employees of Gulf Oil Canada working on drilling rigs, as operators of heavy duty equipment, etc. We have not presented the data for the white workers for separate analysis because they are irrelevant to the terms of reference of this study. However an issue which is distinctly relevant relates to the comparative performances of the Coppermine and the Delta workers with the white workers. How do the responses of the two former groups to the work rotation experience, compare with those of the white workers, in terms of work duration, work persistence, and work dependability, and in terms of the supervisor's ratings on work effectiveness?

The particular significance of this comparison lies in the fact that in certain respects the southern workers are "voluntary" workers in the work rotational context in which they were employed, whereas the Coppermine workers, at least, were involuntary. The white workers were voluntary in the sense that there were other work opportunities available to them in the South. They chose rotational work employment because there were some aspects of this work which they preferred in contrast to the other kinds of work which were

available to them in the south. They were thus clearly a select minority of southern workers who deliberately opted for the distinctive features of work rotation employment in the North.

Coppermine workers, by contrast, were involuntary workers in the work rotational context, simply because virtually none of them had alternative wage employment opportunities: their only choice lay between accepting rotation employment or not working for wages at all. True, at least some of them could have chosen to go trapping instead. However, not only are trapping "outfits" expensive to assemble; the returns from trapping are uncertain at best and there has been mounting evidence for the past 10 years and more of the increasing disaffection of many native Northerners with trapping as a source of income (Clairmont, 1963; Van Stone, 1963). Accordingly the men of Coppermine who accept employment with Gulf are choosing between employment under rotation conditions, and no employment at all. Because the number of wage employment positions available within the settlement of Coppermine is very small, the men from this settlement working for Gulf represent, not a highly select sample of workers as in the case of the whites, but a very large proportion of the total Coppermine male labor force.

The situation of the Delta workers is somewhat intermediate between that of the white workers and the Coppermine

workers. Like the former they live in an area in which a range of other employment opportunities does exist. However like the men of Coppermine their access to this other employment is frequently restricted by a lack of qualifications for much of the employment in the case of many. Moreover, there is heavy competition for non-skilled and semi-skilled employment in their home settlements so that the demand for such employment is considerably in excess of the supply. Thus one must describe the employment of the Delta workers in rotation work as "semi-involuntary"; although the Delta rotation workers do not represent a large proportion of the total native male labor force in the Delta, they certainly represent a very much larger proportion than the white rotation workers represent of the total white male labor force.

One problem in making this comparison lies in the differences in the distributions of work positions which are found in the three groups. Clearly different types of jobs have different patterns of rewards and satisfactions and dissatisfactions, and accordingly may be expected to provoke different responses in the workers who are employed at them. Accordingly it is necessary to make the comparisons holding job level constant, in so far as possible.

A different problem would seem to be the differences in acculturation, in socialization to the work ethic, found between the Northern and Southern workers. Certainly these

differences must exist. However it would seem that Northerners who had not acquired some sense of responsibility to the work presumably would not show up, at least for long, in the worker sample. They would have continued in trapping, and/or on welfare, and as such might pose other "problems". Since the welfare and the marginal trapper alternatives do exist, we take the position that some level of work motivation clearly exists in both white and native worker groups. It is not possible to say more because we do not have independent measures of work motivation for our sample members.

The issue with which we are concerned in this section is whether there is evidence to be discerned, in a comparison of the responses which white, Coppermine and Delta workers make to their rotational employment by Gulf Oil Canada, which would be indicative of less ability to cope with the circumstances of this employment on the part of the relatively unselected Coppermine and Delta workers, as compared with the highly selected (that is, non-random) Southern white workers.

In the pages that follow, we shall first look at the data available to us on the comparative work duration, work persistence, and work dependability of the Coppermine, Delta, and Southern White workers, and then at the ratings which their supervisors gave them on work effectiveness and on camp citizenship.

Work Duration. In Table 6.5 is found a tabulation of the number of weeks actually worked by the 427 workers for



TABLE 6.5

Weeks Worked by Category of Worker  
and Place of Residence  
(Percentages Only)

		Number of Weeks Worked				Total N
		Less Than 2 Weeks	2 - 6 Weeks	6 - 14 Weeks	Over 14 Weeks	
Southern	Drillers Derrickmen Motormen	26	30	25	19	104
Coppermine	Drivers and Operators	0	0	33	67	6
Southern	Drivers and Operators	11	11	44	34	89
Delta	Drivers and Operators	100	0	0	0	1
Coppermine	Roughneck	12.5	12.5	25	50	8
Southern	Roughneck	39	29	24	9	93
Delta	Roughneck	52	14	14	19	21
Coppermine	Swamper	6	28	22	44	18
Southern	Swamper	23	19	32	26	31
Delta	Swamper	100	0	0	0	1
Coppermine	Roustabout	15	33	49	3	33
Southern	Roustabout	20	20	53	7	15
Delta	Roustabout	71	29	0	0	7
Total						427

whom these data are available. The data show, in the first place, only an imperfect tendency for higher status or better paid workers to stay longer on the job. Operators tended to work for most of the season, as did swampers, and roustabouts. Drillers, derrickmen and motormen tended to work less long, while roughnecks, on the average, had the shortest work durations of all.

When we compare workers by place of residence we must ignore the drillers, derrickmen and motormen category since they were all Southerners. Among the drivers and operators, those few from Coppermine worked more weeks on the average than did those from the South. The same thing is true of Coppermine roughnecks, as compared with those from the South. and those from the Delta. We should particularly note that over half of those employed as roughnecks from the Delta worked no more than two weeks. Similarly, those Coppermine men employed as swampers worked for longer durations than those from the South. Of the roustabouts, those from the Delta were least durable, 70 per cent working no more than two weeks, and none working longer than six weeks. Those from Coppermine and from the South tended to work about the same average number of weeks, but more of the latter worked less than two weeks, and more worked for more than six weeks, as compared with those from Coppermine.

In summary, the Coppermine workers proved to be the most durable as operators, roughnecks and swampers, and they

TABLE 6.6

Type of Termination of Employment, as of May 1, 1974  
by Category of Worker and Place of Residence

		Termination as of May 1, 1974			
		Continuing or Terminated at end of Season	Quit	Dis- charged	N
Southern	Drillers, Derrick- men, Motormen	57%	35%	8%	96
Coppermine	Operators	100	0	0	5
Southern	Operators	67	24	10	80
Delta	Operators	0	100	0	1
Coppermine	Roughnecks	75	25	0	8
Southern	Roughnecks	41	46	14	92
Delta	Roughnecks	37	63	0	19
Coppermine	Swampers	71	29	0	17
Southern	Swampers	36	64	0	28
Delta	Swampers	0	100	0	1
Coppermine	Roostabouts	41	59	0	29
Southern	Roostabouts	71	21	7	14
Delta	Roostabouts	17	83	0	6
Total					396

were about equally durable as the Southerners, when working as roustabouts. The Delta workers were least durable of all the roughneck and roustabout work at which they were primarily employed. Southern workers were intermediate in all work categories, where comparison with other work groups was possible.

Work Persistence. In Table 6.6 is found a tabulation indicating whether employees worked till the end of the season, or whether they quit work or were discharged before the end of the season, for the 396 workers for whom these data is available. These data must be taken with discretion, we believe, because of differences in the way unsatisfactory workers were handled. The contrast is most striking in the case of unsatisfactory workers from the Delta and from the South. Supervisors whom we consulted were most emphatic that many Delta workers had been unsatisfactory. However our data show that none of them were discharged. Indeed only Southern workers were fired and the proportions here ranged from 14 per cent for roughnecks to 7 per cent for roustabouts. Nor is it clear concerning the conditions under which a worker was terminated at the end of the season or was continued. We know that about half of the Coppermine roughnecks were continued because they were CAGSL trainees. Why such a high proportion of Southern roustabouts were continued is not clear. We do not know whether preference



TABLE 6.7  
Number of Weeks of Absenteeism of Work,  
by Category of Worker and Place of Residence

		Weeks of Work Absenteeism			
		0 Weeks	1 - 2 Weeks	3 or More Weeks	N
Southern	Drillers Derrickmen Motormen	92%	1%	7%	105
Coppermine	Operators	71	29	0	7
Southern	Operators	77	19	0	90
Delta	Operators	100	0	0	1
Coppermine	Roughnecks	89	11	0	9
Southern	Roughnecks	91	4	5	94
Delta	Roughnecks	90	0	10	21
Coppermine	Swamper	44	23	33	18
Southern	Swamper	84	10	6	31
Delta	Swamper	100	0	0	1
Coppermine	Roustabout	76	12	12	33
Southern	Roustabout	75	12.5	12.5	16
Delta	Roustabout	100	0	0	7
Total					433

in continuation was given, other things being equal, to Southern workers, or to Coppermine workers, or not.

What is clear is that sizable numbers of Southern workers were discharged, that the proportion of Coppermine workers who quit their jobs prior to the end of the season was disproportionately small, that the comparable proportion of Delta workers was disproportionately large, and that relatively large proportions of both Coppermine and Southern workers continued to work after the end of the season. There is no indication here that in comparison with southern workers, the Coppermine workers were unable to persist until the end of the season, thus giving evidence of inability to cope with the stresses of this type of rotational employment.

Work Dependability: Weeks of Absenteeism from Work. In Table 6.7 is found a tabulation of the number of weeks of absenteeism from work, not counting "long breaks", for the 433 workers for whom these data are available. The data show generally that the rig crews - drillers, derrickmen and motormen and roughnecks - had the fewest interruptions. Roustabouts, swamper and operators all had about the same number of absenteeisms.

Coppermine workers had the highest number of absenteeisms, but it should be emphasized that their proportion is higher than that of Delta workers because more than half of the latter worked no more than two weeks. It is interesting to note that the tendency of Coppermine workers to absenteeism was related to their job type: only one roughneck was ever absent, 24 per cent of

the roustabouts were absent, 29 per cent of the operators, and 56 per cent of the swampers. This roughly parallels a similar pattern among the Southern workers, except that Southern swampers were very infrequent in absenteeism.

In summary, it is obvious that the Coppermine workers were absent substantially more than the Southern workers. However, it should be emphasized that such absenteeism was not infrequently in response to demands in their home situation which are peculiar to the situations of native Northerners: they had to go hunting to supply meat to their families, or they had to run a trapline for a relative or friend who was unable to because of illness, or they stayed home because they themselves or another family member was sick, and this was not communicated to the foreman or did not become a matter of company record, since greater absenteeism was expected of the native workers. It was in fact company policy to permit native workers to miss a work rotation for reasons such as those cited above. Note further, however, that an indication of increased responsibility on their part is seen in the fact that they were least often absent in the work type where this would have been particularly disruptive of production, roughnecking work, where full work team strength is critical.

Reasons for Absenteeism from Work. In Table 6.8 is found a tabulation of the reasons for absenteeism experienced by the 433 workers for whom we have data. It is apparent that for most Southern workers the proportion of justified to unexplained

TABLE 6.8

Reason for Absenteeism by Category of Work  
and Place of Residence

		Type of Interruption			
		None	Unexplained	Justified	N
Southern	Driller, Derrickmen, Motormen	92%	1%	7%	105
Coppermine	Operators	71	29	0	7
Southern	Operators	70	22	8	90
Delta	Operators	100	0	0	1
Coppermine	Roughnecks	100	0	0	9
Southern	Roughnecks	91	4	5	94
Delta	Roughnecks	86	9	5	21
Coppermine	Swampers	44	39	17	18
Southern	Swampers	84	3	13	31
Delta	Swampers	100	0	0	1
Coppermine	Roustabout	76	21	3	33
Southern	Roustabout	75	6	19	16
Delta	Roustabout	100	0	0	7
Total					433

absenteeism was higher than for the Coppermine workers. (We have noted before that most of the Delta workers worked so briefly that



they had little occasion to interrupt their work schedule.) Coppermine operators and swambers had particularly high proportions of unexplained absenteeisms. As we implied above, these data on type of absenteeism should probably be viewed with some skepticism, since it was very apparent that white time keepers expected Coppermine workers to have a high incidence of unexplained absences, and were prepared to tolerate this. Thus there is reason to believe that when Coppermine workers missed a work rotation, the timekeeper did not inquire concerning the reason for the interruption, and when they did chance to hear of justified absences, they did not bother to make them a matter of official record.

Supervisors' Work Performance Ratings. In Table 6.9 is found a tabulation of the supervisors' ratings of workers on job performance for the 300 workers for whom this information is available. In regard to drivers and operators, the data show that while the Southern operators were more often rated "excellent" by the supervisors, they were also more often rated "average" or "below average" by supervisors, than were those from Coppermine. Thus the Coppermine drivers and operators were more often rated "above average" than were those from the South.

Roughnecks from Coppermine were also generally rated as superior comparable with those from the South in work performance. Those from the Delta were found to be distinctly inferior, with 50 per cent of the latter rated below

TABLE 6.9

Supervisors' Work Performance Ratings by Category  
of Worker and Place of Residence

		Work Performance Rating				N
		Ex- cellent	Good	Average	Below Average	
Southern	Drillers Derrickmen Motormen	23%	38%	32%	7%	71
Coppermine	Operators	14	43	43	0	7
Southern	Operators	26	21	46	8	66
Delta		- - - - - No Data - - - - -				
Coppermine	Roughnecks	0	37.5	37.5	25	8
Southern	Roughnecks	7	31	44	18	45
Delta	Roughnecks	10	30	10	50	20
Coppermine	Swampers	19	25	56	0	16
Southern	Swampers	12.5	62.5	12.5	12.5	16
Delta	Swampers	0	0	0	100	1
Coppermine	Roustabout, Lease Hand	11	29	50	10	28
Southern	Roustabout, Lease Hand	18	9	36	36	11
Delta	Roustabout, Lease Hand	0	25	50	25	4
Total						300

average by their superiors. We feel very sure that if all of the data were available for Southern roughnecks there would have been a higher proportion of below average ratings for this category because they had worked such a brief period, and short term workers generally had low ratings.

The data show that Coppermine swampers were found to be somewhat inferior to those from the South. Only 44 per cent of the former as compared with 75 per cent of the latter received above average ratings. However the Coppermine group did include a slightly higher proportion of those rated "excellent", and the Southern group included a higher proportion of those rated "below average". Finally, of those working as roustabouts, the Coppermine workers were clearly superior to those from the South, with higher proportions of the former rated "average", and higher proportions of the latter rated "below average". The Delta swampers were found to be least satisfactory of all.

In summary, no comparison could be made between Southern workers and native workers among drillers, derrickmen, and motormen because no natives were employed at all consistently in these positions. Among drivers and operators, roughnecks and swampers, while there tended to be more Southerners rated "excellent", more also were rated "below average". Those from Coppermine were most frequently rated as "good" and "average" thus identifying these workers as more consistently solid and dependable than those from the south. Among the roustabouts

the superiority of those from Coppermine is very clear. Delta workers were employed primarily as roughnecks, and to a lesser extent as roustabouts. In both positions their work performance were the least satisfactory of all.

Supervisors' Ratings: Ability to Withstand Stress of Arctic Work Conditions. In Table 6.10 is found a tabulation of supervisors' ratings of workers' ability to withstand the stress of work in the Arctic environment, for the 289 workers for whom this information is available. The data show that Coppermine workers were rated as superior to both Southern and Delta workers for all categories of positions in which they were employed, on this criterion. Their superiority as drivers and operators and as swampers was particularly noteworthy. Delta workers were rated below Southern workers on this criterion in the two worker categories in which they were represented, the roughneck and roustabout categories.

Supervisors' Nominations of Workers for Inclusion on a "First Rate Crew". In Table 6.11 is found a tabulation of the Supervisors' nominations of workers for inclusion in a "first rate crew", for the 284 workers for whom this information could be obtained. There were inconsistencies between the data in this table and those found in some of the preceding tables which can be explained in part by incompleteness of the ratings. Further, although this seems difficult to understand in view of the information of work performance



TABLE 6.10  
Supervisors' Stress Ratings\* by Category  
of Worker and Area of Residence

		Withstand Stress Ratings				N
		Ex- cellent	Good	Average	Below Average	
Southern	Drillers Derrickmen Motormen	19%	30%	41%	10%	70
Coppermine	Operators	29	29	29	14	7
Southern	Operators	18	33	32	17	66
Coppermine	Roughnecks	0	50	33	17	6
Southern	Roughnecks	9	13	58	20	45
Delta	Roughnecks	10	21	16	53	19
Coppermine	Swampers	38	50	12	0	16
Southern	Swampers	12.5	44	31	12.5	16
Delta	Swampers	0	0	0	100	1
Coppermine	Roustabout, Leasehand	14	46	36	4	28
Southern	Roustabout, Leasehand	9	18	36	37	11
Delta	Roustabout, Leasehand	25	0	50	25	4
Total						289

\* Ratings on Item "How well does this man stand the stresses and strains of work in the Arctic?"

TABLE 6.11

Supervisors' Nominations of Workers for Inclusion  
on a "First Rate Crew" by Category of Worker  
and Place of Residence

		Nominated		
		Yes	No	N
Southern	Drillers, Derrickmen, Motormen	65%	34%	63
Coppermine	Operators	71	29	7
Southern	Operators	59	41	66
Coppermine	Roughnecks	40	60	5
Southern	Roughnecks	54	46	43
Delta	Roughnecks	44	56	16
Coppermine	Swampers	63	37	16
Southern	Swampers	80	20	15
Delta	Swampers	- - - No Data - - -		
Coppermine	Roustabout Leasehand	55	45	29
Southern	Roustabout Leasehand	27	73	11
Delta	Roustabout Leasehand	75	25	4
Total				275

ratings presented in Table 6.9 the explanation for the infrequent choice of Coppermine roughnecks is to be found in part in their low ratings on camp citizenship, the last rating supervisors made before responding to the item dealing with nomination for inclusion on a "first rate crew". The explanation for the lower standing of the Coppermine swampers is found in the fact that supervisors more often ranked Southern swampers as above average than they did those from Coppermine. Once again we should emphasize that if these ratings were available for all workers, the proportion of Coppermine workers nominated for inclusion would certainly be higher than those of Southern and Delta workers, because the short durations that many of these latter worked were associated with low performance ratings.

Supervisors' Ratings: Camp Citizenship. In Table 6.12 is found a tabulation of supervisors' ratings of workers in terms of "camp citizenship", by category of workers, for the 292 men for whom these ratings were available. The data show that generally swampers, operators, drillers, derrickmen, and motormen were rated higher than roustabouts, while roughnecks were rated lowest of all. When we look at these ratings by area of residence, we find that Coppermine workers were rated highest among operators, swampers, and roustabouts, in comparison with those from other areas. However Coppermine roughnecks were rated below roughnecks from the South and from

TABLE 6.12  
Supervisors' Camp Citizenship Ratings by Category  
of Worker and Place of Residence

		Camp Citizenship Rating				N
		Ex- cellent	Good	Average	Below Average	
Southern	Drillers Derrickmen Motormen	23%	31%	40%	6%	70
Coppermine	Operators	29	14	57	0	7
Southern	Operators	20	32	42	6	66
Coppermine	Roughnecks	0	25	50	25	8
Southern	Roughnecks	7	31	49	13	45
Delta	Roughnecks	10	30	40	20	20
Coppermine	Swampers	44	37	19	0	16
Southern	Swampers	31	50	6	13	16
Delta	Swampers	0	0	100	0	1
Coppermine	Roustabout, Leasehand	18	29	43	10	28
Southern	Roustabout, Leasehand	9	0	64	27	11
Delta	Roustabout, Leasehand	0	0	75	25	4
Total						292



the Delta on camp citizenship.

Summary. The information on work effectiveness by job type and by residence of worker can be summarized as follows.

In terms of duration of employment, Coppermine workers were the most long-working of all categories, as operators, roughnecks, and swamper, and were equal with Southerners in persistence as roustabouts. Delta workers were the least persistent of all in the roustabout and roughneck work at which they were employed.

In terms of work persistence, and leaving out the data for the drillers, derrickmen, and motormen since they were all white, our data show that there were no differences between the work persistence of the white and the Coppermine workers. Fifty-five per cent of those in both these groups continued to work at least until the end of the heavy employment season. Indeed if the drillers, derrickmen and motormen are included in the white component, the results are the same. The Delta workers however were distinctly less persistent, only 37 per cent of them remaining on the job until the end of the employment season.

In terms of the tendency to unjustified absenteeism in work routine, it is obvious that the Coppermine workers were absent substantially more frequently than the Southern workers. However it is most encouraging to note that in roughnecking work, where dependability of return from long

breaks is particularly critical so that the drilling team remains intact, our data show that Coppermine workers had low absenteeism. Moreover, we are sure that the reported incidence of unjustified absenteeism among Coppermine workers is exaggerated because time keepers, expecting them to have high absenteeism rates, were less conscientious about inquiring into the reason for absences, and about recording justifiable absences when they occurred.

A word of qualification is needed in evaluating the conclusions drawn from the supervisors' ratings of workers, recorded below. Supervisors' ratings were available for only about 70 per cent of the workers for whom we had data on work duration, interruption, etc. Thus, for example, supervisors' work performance ratings were available for 68 per cent of the Coppermine workers for whom work duration data was available, but the comparable figure for Southern workers is only 64 per cent. Since those for whom ratings were not available were those who worked most briefly, and since they also tended to be unsatisfactory workers, it is obvious that a selective factor has operated in the case of Southern workers, such that ratings are more frequently available for the more satisfactory workers. Such selection was little involved in the case of Coppermine workers, and was slightly more involved in the case of Delta workers.

In terms of supervisors' work performance ratings of drivers, operators, roughnecks, and swamper, while there

tended to be more Southerners rated "excellent", there were also more rated below average, in comparison with the Coppermine workers. Those from Coppermine were most frequently rated as "good" or "average" thus identifying these workers as more consistently solid and dependable than those from the South. Among the roustabouts, the superiority of those from Coppermine is clear. Delta workers, who were employed as roughnecks and roustabouts, were rated the least satisfactory of all.

In terms of ratings on ability to withstand the stress of Arctic work conditions, the Coppermine workers were rated as superior to those from the South and from the Delta, in all work positions in which they were employed. Delta workers were rated below Southern workers in the roughneck and roustabout categories in which they worked.

In terms of supervisors' nomination for inclusion on a "first rate crew", Coppermine operators and roustabouts were more often nominated than were those from other areas. This pattern was reversed, however, for roughnecks and swampers. The reason for these reversals appear to be that Coppermine roughnecks were more often rated low in camp citizenship, and Coppermine swampers were less frequently rated above average, than were similar workers from the South.

Finally, in terms of supervisors' ratings on camp citizenship, Coppermine workers were rated highest among operators, swampers, and roustabouts, in comparison with those

from other areas. However Coppermine roughnecks were rated below those from the South and from the Delta.

Conclusion. We must conclude, from this comparative analysis of the responses of white and native workers to the 14 days of work and seven days at home rotation scheme under which they worked, that there are no indications that the adaptation of Coppermine workers to this experience was less adequate emotionally speaking, or less satisfactory as work performance than was that of the much more highly selective sample of white workers. There are, indeed, indications<sup>s</sup> that the adaptation of the Coppermine workers was in fact somewhat superior to that of the white workers. In the case of the Delta workers there were indications that their adaptation was distinctly less satisfactory than that of either the white or the Coppermine workers. We suspect that this may be due in large part to the relative immaturity of the Delta workers. As compared with the other two samples they are both younger, and more socially immature in terms of not having married and assumed the obligations of supporting a family. Analyses of the characteristics of effective white "oil patch" workers which are not reported here show that young and unmarried white workers show many of the same work performance characteristics as do the Delta workers. This is particularly apparent among the white roughnecks in the present sample. Experienced white work supervisors in the Delta will tell



you as well that many of the unskilled and semi-skilled native workers in the Delta have been "spoiled" by the high wage rate and overtime rates that are everywhere available, and the ease with which it is possible to find a new job after working briefly at a previous job. Thus the situation in the Delta has been if not rewarding, at least lacking in penalties for men who work briefly at a job and quit because they have a bit of a "bankroll" and are restlessly tired of working.

#### The 14 - 7 Day Rotation: General Summary and Conclusions

The data which we have been able to examine with respect to the consequences of the rotational employment available to the residents of Coppermine and the Delta with Gulf Oil Canada have included the following:

Opinions and reactions of workers, wives and children in Coppermine and some of the Delta communities relating to the 14 days at work and 7 days at home rotation schedule established by Gulf Oil Canada, following the first year of such employment.

Opinions and reactions of some of the workers, wives and children in Coppermine relating to the 14 days at work and 7 days at home rotation schedule following the second year of such employment by Gulf Oil Canada.

Work performance and supervisor rating indicators of the Coppermine and Delta workers employed by Gulf Oil under this rotation schedule.

Comparison of the work performance and rating indicators of the Coppermine and Delta Inuit workers with those of the white workers employed by Gulf Oil.

Indicators of the effects of the Gulf rotational employment on family and community life in Coppermine, including data on liquor imports into the community, respiratory illnesses in pre-schoolers, drunken violence, and convictions in the Magistrate's Court.

None of these various kinds of data, and of inter-group comparisons, give indication of significant adverse or painful, or dangerous, or costly psychological or social effects of the rotational employment for Coppermine, which would contraindicate the continuation of this rotational employment for this, or by extension for similar communities. No such statement can confidently be made with respect to the Delta workers, but nor is it possible to say that there are indications of significant adverse affects of this employment. The Delta sample was too small, and particularly was composed of too high a proportion of young, socially immature workers, to permit drawing conclusions from the erratic and numerically few data available for the Delta workers.

## CHAPTER VII

### The Twenty Days at Work and Ten Days at Home Rotation Schedule of Pan Arctic Oil, Ltd.

#### Background

Pan Arctic Oil first began its oil exploration activities in the High Arctic during the 1970's. It moved its first drilling rigs into the area for the 1969-70 winter season, and this was the first year in which they employed any Inuit workers. During that first season only one or two from Pond Inlet were employed to work as unskilled laborers at the base camp at Rae Point. They proved to be very satisfactory workers.

Sometime during the course of that season an official from the Department of Northern Affairs suggested that since the Government was a major stockholder in Pan Arctic, and since there were many unemployed natives in Northern settlements, some serious effort should be made to provide employment to natives with Pan Arctic Oil. The response of Pan Arctic officials was that since their experience with the Pond Inlet workers at Rae Point had been quite satisfactory this was worth exploring.

Surprisingly the initial approach of the company was not to approach Pond Inlet immediately, possibly because Pan Arctic is a Western based company and thus may have a

western bias. Instead a meeting was organized in Yellowknife, during the spring of 1970 with Settlement Managers from Cambridge Bay, Spence Bay, Gjoa Haven, and Pelly Bay to explore the possibilities of recruiting native work crews from one or more of these settlements. Pan Arctic was looking for a labor pool which could dependably supply 24 men on the job throughout the winter drilling season. The rotation period would be 20 days at work and 10 days at home just as in the case of the white workers. Thus a minimum of 36 workers would suffice. However it was anticipated that many natives might not immediately want to return to work after just 10 days at home, and so a larger work pool would in fact be necessary.

For reasons that are not entirely clear, it was decided that adequate transportation arrangements could not be conveniently worked out with the four central Arctic settlements listed above. Accordingly another meeting was scheduled shortly after the first, in Frobisher Bay with the Settlement Managers of Grise Fjord, Arctic Bay, Pond Inlet and Clyde Inlet, to explore the possibility of recruiting the necessary workers from these settlements. As a result of the discussions it was decided that Arctic Bay and Pond Inlet would probably be able, jointly, to provide the size of the labor pool which would be needed.

Thereafter events moved very rapidly. Pan Arctic did not embark on the kind of careful consultation and orientation



which marked the onset of the Gulf Oil program to employ workers from Coppermine. In fact there was no approach made to the Settlement Council at all. Instead representatives of Pan Arctic flew into the two settlements, a community meeting was called, the conditions of employment were briefly explained, and men who were interested were invited to sign up. There was no orientation provided to the drilling supervisors, "tool pushers" or foremen. There was not even any detailed briefing of the community. In December, 1970, when the planes flew into Pond Inlet and Arctic Bay to pick up the first work crews, the men were waiting, with little packed in the way of necessities for the three week laboring work to which they were being transported. Similarly at the drilling rigs where the men were dropped off, the drilling supervisors knew the men were coming, but they had little briefing as to how they were to be used.

Throughout the succeeding five employment seasons the approach of Pan Arctic has been consistent: they hire men, they transport them to work, they work them for 20 days, and they transport them home. The attitude clearly is that what the effect of Pan Arctic employment may be on the men, their families, or their communities is of no concern to Pan Arctic. It has never sponsored any assessments or impact studies focusing on its employment of native people.

During the first, 1970-71 employment season 24 Inuit

men were consistently employed by Pan Arctic at their various work sites, and this has remained the consistent pattern through the 1975-76 drilling season. In addition larger crews were typically hired for brief periods at "ship time" to help in the unloading of sea lift cargoes, but this brief and casual employment is ignored in the present study. It seems surprising that there has been absolutely no expansion in the number of natives regularly employed since the beginning of the first season. One might have expected that there would have been some occupational upgrading of the Inuit workers, in transportation, maintenance and supply, if not on the "rig floor", with the result that the Inuit could replace more skilled white workers, and the native work crew would grow. But this has not been the case. It would seem almost as if the Company had decided on a quota of 24 native workers continually on the job for their High Arctic operations, and had imposed this quota irrespective of fluctuations in the size of their exploration program, and irrespective of the number of native men who might be qualifying themselves for upgraded employment. As time has gone on there has been some slight broadening of the kinds of work which the Inuit workers do. In addition to unskilled work as "lease hands" and on the yard crew at Rae Point, some have been employed as heavy duty equipment operators, and truck drivers, and a very few have worked as "roughnecks". But throughout the period of employment, the number of workers hired has remained the same.

The result of course is that there has been great consistency in the volume of employment which Pan Arctic has made available to the Arctic Bay and the Pond Inlet communities, and the earnings that have flowed into these communities. A work pool approach has been used to keep a staff of 24 Inuit workers on the job at any one time. There is an "Expeditor" in each of the communities whose responsibility it is to ensure that the quota of that settlement is filled each rotation period, and these expeditors are paid on a piece rate, so much for each man dispatched each rotation period. As a result, each expeditor has a vested interest in supplying all of the men in their quota, with the result that Arctic Bay and Pond Inlet function as two independent, rather than interdependent labor pools.

#### The 20 Day On, 10 Day Off Rotation Pattern

The 20 days at work, 10 day long break rotation pattern is used by Pan Arctic Oil Ltd. with all their seasonal employees in their High Arctic hydrocarbon exploration activities operating out of Rae Point on Melville Island. Pan Arctic employed a few Inuit workers from Pond Inlet in the fall of 1966. However, it was during the winter of 1971-72 that Inuit workers were first employed in substantial numbers. During that year Pan Arctic employed about 65 workers from Pond Inlet, and Arctic Bay to fill 24 positions.

We turn now to a presentation of interview data reflecting the reactions of the Arctic Bay and Pond Inlet workers, and of their wives and children to the 20 day rotation period. Thereafter we shall present data on the work effectiveness of these workers, and on the effects of the rotational employment on the two communities.

The data which are reported in this section were obtained using essentially the same interview schedules and the same supervisor rating schedules as were used in the 1973-74 season surveys of Coppermine and Delta workers and their families. Once again, comparable data are available from interviews with white workers which were done at the same time. Supervisors ratings were collected, and white workers were interviewed at the Rae Point base camp, and at various outlying drilling rigs. during August and early September of 1974, by a graduate student at the University of Alberta. Interviews with men who had worked, or were working for Pan Arctic at the time, were conducted in Pond Inlet and Arctic Bay by trained Inuit interviewers in each community during the Fall and Winter of 1974. The data refer to the 1973-74 employment season.

The Pond Inlet interviews were obtained from 33 men, 81 per cent of the 41 men who worked for Pan Arctic during the 1972-73 season with 16 of their wives and with 36 children. There are no indications of distinct dissimilarity between the respondents from Pond Inlet and those from Arctic Bay.



Accordingly, in order to avoid needless repetition the interview data from these two settlements will be pooled.

#### Characteristics of the Sample of Pan Arctic Workers.

The 67 men who were interviewed were rather young, with a median age of 25 years. One fifth were no more than 20 years of age, and only 12 per cent were over 30, of whom the oldest was about 44 years old. Sixty per cent were married, and the other 40 per cent were all single. Only three of the married men were childless. The median number of children was three with about 20 per cent having only one child and the same proportion having five or more.

One third of the men had had no formal schooling. The median number of years of those who had was seven. One half of the total sample had had no more than two years, and a surprising one third had had eight or more years of schooling. Half of the sample had had no residential schooling. Two thirds of the remainder had had no more than three years, but one fifth had had eight or more years of residential schooling. In addition, 37 per cent had had special job training of one kind or another.

Almost half, 45 per cent, had never had full time trapping experience, which is another reflection on the youthfulness of the sample members. One third had trapped within the last four years, and 22 per cent had stopped trapping full time at least six years ago. Of those with

fulltime trapping experience, 40 per cent had had no more than five years, and about the same proportion had trapped for nine or more years.

All of the sample members had had some type of wage employment experience, for almost two thirds as unskilled laborers. All but 10 had worked longest in some form of government employment. About half of the men in the sample had worked no more than nine months at their longest lasting job. Forty-two per cent had worked no more than six months, and only 10 per cent had worked three or more years at their longest lasting job. About one half had worked for a total of 16 months during the preceding five years: one fifth had worked no more than six months, while 20 per cent had worked two or more years.

These men worked in a number of capacities for Pan Arctic reporting on the basis of the job at which they worked longest. The majority, 35 out of 67 worked as "lease hands" or "roustabouts" around drilling rigs, and another 30 per cent worked as unskilled laborers on the "yard crew" at Rae Point. Three worked as heavy duty equipment operators, seven as truck or fork lift drivers, one as a "Swamper" and one in an unspecified capacity. In response to the question "what job did you like best while working for Pan Arctic this last winter?" the largest number (36 per cent) said driving a truck or fork lift: 29 per cent said working on a lease crew, 21 per cent said working on

the yard crew, and 6 per cent each said operating heavy duty equipment, and some "other" work. Nine men failed to respond.

Reactions to Rotation Employment. The interview data show that most of these Baffin Inuit workers had a favorable reaction to their rotation work experience with Panarctic. Ninty per cent of the 67 respondents said they believed the employment program was a good thing for their home settlements, the remaining seven men saying they did not think so. Most of those replying affirmatively (56 per cent) said that it gave men an opportunity to work; 27 per cent mentioned the income earned, 8 per cent mentioned the opportunities to learn more about the white way of life and 3 per cent referred to new job skills learned. Of those responding negatively, two each mentioned resulting disruption of the community and liquor importation into the community. The remainder gave no reasons.

When asked if they would like to work for Panarctic again the following season, 46 per cent of the 64 respondents said they definitely did, 38 per cent said they probably did, and the remaining 18 per cent said they probably did not or were not sure (3 per cent). None said they definitely did not want to work for Panarctic again the next year.

A further indication of the general satisfaction of the Baffin Island workers with the work situation generally is seen in their responses to the question "Would you have liked to work longer (for Pan Arctic last winter)?" All but six of

the 67 men interviewed responded "yes". This reply should not be taken too literally. In reply to the question "Why did you stop (working for Pan Arctic when you did last year)?" only about one half reported that they didn't quit (15 per cent) or that they quit involuntarily - because of redundancy - (15 per cent), illness (9 per cent) family problems (3 per cent) or because they got a job at home (9 per cent). The remaining 49 per cent terminated voluntarily, because they were tired of working (26 per cent) or wanted to spend more time at home (13 per cent) or wanted to go hunting (10 per cent). But the indication of 91 per cent of the men that they would have liked to work longer must certainly be taken as reflecting a favorable attitude toward the work situation.

The data which are most relevant to the question of an optimum rotation interval were obtained in response to the question asking whether the workers would prefer "to work three weeks in camp with one week at home, and earn more money every month, or 2 weeks in camp with one week at home like you did last winter and earn the same money every month as last year, or to work 2 weeks in camp with two weeks at home and earn less money every month than you did last year?"<sup>1</sup>

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1. Note that the wording of this question was not as planned, through an oversight. It was planned to have as the first option four weeks at work and 10 days at home. As asked the question erroneously assumes that they were working a 14 day and seven day rotation schedule, instead of the "20 and 10" day rotation schedule that they were actually working. Accordingly it is not clear whether the responses of the workers reflect their awareness that the first alternative was the schedule they were actually working, or whether they were responding to the (erroneous) implication of the question of a longer work period than they were used to, under which circumstances they would earn more money.



A majority of the 67 men responding, 55 per cent, opted for the three weeks at home and one week at home work schedule. Forty per cent said they would prefer the "two and one" week work schedule, and three men said they would prefer the "two and two" week option which would allow them more time at home while earning them less money. When asked to give their reasons for their choice, almost all of those opting for longer work, 49 per cent of the total, mentioned the prospect of increased earnings. Those choosing their current rotation schedule said that it was long enough but not too long a time to work (36 per cent) and that they get tired sometimes (8 per cent). Those indicating that they would like more time at home said they liked to go hunting.

Of course there were some sources of dissatisfaction. In order to probe these we asked the workers how they felt about various aspects of their work experience. Their responses to the questions about work, camp, and transportation are summarized in Table 7.1. Our discussion in connection with the Coppermine data, of the confidence which may be placed in Inuit responses to this type of question, applies here as well, of course.

It is noteworthy that by contrast with the Coppermine workers, the Baffin Island workers indicate more dissatisfaction with all aspects of the work experience. Thus only 49 per cent of the Baffin workers said they liked their work activity, as compared with 89 per cent of the first year

TABLE 7.1

Feelings of Pond Inlet and Arctic Bay Workers  
About Various Aspects of Their Work Experience (Percentages)

	Liked Very Much	Liked A Little	Indif- ferent	Dis- liked A Little	Dis- liked Very Much	Number of Respond- ents
While you were working how did you feel about:						
Your work activity, what you did on the job	34%	15%	33%	12%	6%	67
The bosses who told you what to do	46	13	25	8	8	67
Other Inuit workers	54	16	21	8	1	67
Other white workers	42	25	21	10	1	67
Food on the job	72	4	15	6	3	67
Your free time (non-work time in camp)	36	9	27	12	16	67
The flights between your home and the camp	32	3	12	29	24	67

Coppermine workers, and the same contrast is true of all other entries in the table. However with the exception of the first and the last two items, a majority said they "liked" the work experience aspect in question. The least enjoyed were the flights between home and camp, disliked by 53 per cent, and free time at camp, disliked by 28 per cent.

TABLE 7.2

Aspects of Work Experience Mentioned as Most Liked  
and Most Disliked by New Workers  
(Percentages)

Things Like Most	First Camp	Second Camp	Things Dis- like most	First Camp	Second Camp
Work activity	34%	48%	Work Activity	16%	35%
Bosses	29	22	Bosses	18	18
Inuit workers	4	4	Inuit workers	2	0
White workers	7	0	White workers	9	6
Food on the job	22	22	Food on the job	2	0
Free time	2	0	Free time	25	18
Flights to camp	2	4	Flights to camp	28	24
Number of respondents	64	23	Number of res- pondents	44	17

The workers were further asked "which of these things (listed in the table above) did you like best, and dislike most, at the first camp, and at the second camp you worked at?" Their responses, found in Table 7.2, indicate that work activity was both the most liked aspect, and along with the flights to camp, was the most disliked of the aspects listed. The bosses were also both popular and unpopular.

As with the Coppermine sample, we sought to assess the reactions of the Baffin men to separation from their homes and their families by asking them four questions. The first was

TABLE 7.3

Responses of Baffin Island Workers  
to Questions Dealing with Work-Imposed Separation

Separation Condition	Response					Total Respondents
	Liked Very Much	Liked A Little	Didn't Care Indifferent	Dis-liked A Little	Dis-liked Very Much	
Separation from wife	10%	10%	30%	25%	25%	40
Separation from children	11	6	22	36	25	37
Separation from friends and relatives	8	6	63	19	4	67
Not being able to take part in community activities	5	3	58	28	6	

"While you were working for Panarctic, how did you feel about: separation from wife, and separation from children, separation from friends and relatives, and not being able to take part in community activities?" The response alternatives provided, and the responses of the men interviewed, are seen in Table 7.3. The second question asked: "Men working away from home often worry about things. How much did you worry about: something happening to my wife; something happening to my children; something happening to other relatives; kids might get into trouble without their father; wife might get into



TABLE 7.4

## Worries Mentioned by Baffin Island Workers

Specific Worry	Worried Very Much	Worried A Little	Didn't Worry at all	Number of Respondents
Something happening to me (accident, death)	9%	24%	67%	67
Something happening to my wife (accident, etc)	32	48	20	40 <sup>1</sup>
Something happening to my children	41	44	15	37 <sup>2</sup> 2
Something happening to other relative	20	38	42	66
Kids get into trouble without father	30	25	45	37 <sup>2</sup>
Wife get into trouble	28	20	52	40 <sup>1</sup>
1. 27 men were single 2. 30 men had no wives				

trouble?" The responses of the men are found in Table 7.4

These data clearly reflect a great deal of concern on the part of married men for their wives and children much more so than was seen in our responses to the same question from the first year Coppermine workers.

Two other questions asked "How do you think your wife feels about your being away from home when you are working for Pan Arctic?" "How do you think that your children feel about your being away from home when you are working for Pan

Arctic?" In reply to the first question 23 per cent of the men said they thought their wives disliked it very much, 12 per cent said they thought they disliked it a little. 25 per cent said they thought their wives were indifferent, and 30 per cent said they thought their wives liked the separation. In reply to the second question, 35 per cent said they thought their children disliked it very much, 41 per cent said they thought the children disliked it a little, and 21 per cent said they thought their children were indifferent.

The final question in this vein asked "Does it bother you very much that your wife and children are sometimes very lonesome for you?" Almost half, 43 per cent of the married men replied that "it bothers me a lot", 27 per cent that it "bothers me a little" and 30 per cent said "it doesn't bother me."

Toward the end of the interview the workers were asked "What changes would you like to see to make this job better, or less bad?" The most common responses by the 22 men who made one or more suggestions were: easier work (28 per cent) and, greater opportunities for advancement (23 per cent). Two men each suggested work closer to home, cleaner work, inside work, higher pay, a fairer supervisor, and one man each suggested a more considerate supervisor, working in all Inuit crew, better food, and more interesting time off activities. It is noteworthy that no one suggested either a longer or a shorter rotation period.

In summary, it is apparent that the Baffin workers did not respond as enthusiastically to their work rotation experience as did the Coppermine workers. However they were yet strongly favorable, as seen in the proportions who endorsed the long work rotation schedule, and who reported that they would like to work for Pan Arctic again next year. It is very clear, from the men's responses, that the separation from their families does bother them, and that they worry about the welfare of their wives and children when they are away at work, but it seems equally clear from the pattern of their responses, that this is a price they are prepared to pay for the opportunity to work, in the absence of opportunities closer to home.

#### Reactions of Baffin Wives to Their Husbands' Employment

Interview data are available for 35 of the 40 wives of the men who were interviewed, sixteen from Pond Inlet, and 19 from Arctic Bay. Most of the wives were rather young: 43 per cent were no more than 25 years; 26 per cent were aged 26 to 30 years, and the remaining 31 per cent were all between 31 and 40 years of age. About one quarter (29 per cent) had been married no more than five years, one third had been married between six and twelve years, and the remaining 37 per cent had been married for more than 12 years, including

11 per cent who had been married more than 18 years. The median number of children born to them was three, generally reflecting the young age of the group. Twenty-three per cent had only one child, two thirds had no more than three, and one quarter had five or more, the largest number being six.

Eighteen of these 35 wives had had no schooling, and eight of the remainder had had only one year, five had had between two and five years, and four had had seven or eight years. Seven had had some residential schooling

As was true of their husbands, these women were far less consistently favorable to their husband's employment than were the wives of the Coppermine workers, although more said that they were favorable than otherwise. In response to the question "Do you think it is a good thing for this settlement for many of the men here to work away from home at oil work camps?" all but one answered "yes". When asked why they felt this way, all who had answered affirmatively referred to the income that the men were thus able to earn. However their responses to the question "Did you want your husband to work for Pan Arctic before he went for the first time?" reflected a great deal more personal ambivalence. Here 40 per cent of the women said "yes for sure" (37 per cent) or "yes maybe" (3 per cent) 29 per cent said "no for sure" (26 per cent) or "no maybe" (3 per cent) and the remaining 31 per cent said they did not know, an answer which certainly



reflects ambivalence. Fourteen women gave reasons for wanting him to go, all mentioning the money or the goods which they could purchase which would result. Of the 10 women who gave reasons for not wanting him to go, seven mentioned loneliness, two mentioned the difficulty in getting food, and one said she feared the rate of pay would be low.

The data strongly suggest, however, that this initial reluctance was soon overcome. Thus in response to the question "Would you like (your husband) to work for Pan Arctic this coming winter?" all but five, 86 per cent answered "yes for sure" (49 per cent) or "yes maybe" (37 per cent). Four answered "no for sure" and one "no maybe". The reasons given by those wanting their husbands to work are the same as we have seen before: 71 per cent mentioned the money to be earned and the goods that could be purchased, two said their husbands wanted to go to work, and two mentioned special training that their husbands would be able to receive. The five women who did not want their husbands to take employment with Pan Arctic all said their husbands now had jobs in town. One other said she did not want to see her husband go because of the loneliness she would experience.

Clear indication of their general favorability to the employment opportunity is found in their answers to the question "How long would you like for him to work next winter?" All but three of the 30 women who answered this

question said that they would like for him to work "as long as possible". Similar endorsement of the rotation employment is found in their responses to the question "Would you like your husband to work: three weeks in the camp with one week at home and earn more money; or two weeks in camp with one week home, just like last winter for the same money; or two weeks at work and two weeks home with less money?"<sup>1</sup> The largest proportion, 43 per cent chose the option which would involve more time away from home, and higher earnings. Forty per cent chose the two weeks at work and one week at home option, and six women, 17 per cent, chose the option offering two weeks at work and two at home. Unfortunately, given the ambiguity of the question we are not able to say, for sure, whether or not the second set of respondents was in fact opting for a shorter rotation period away from home, or the same rotation arrangement as was in force the preceding year.

In response to the question "what did you like about your husband's working for Pan Arctic last winter?" 28 mentioned the money earned and the things they had bought, four said they liked it because their husbands wanted to

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1. We have noted earlier the fact that this question was ambiguous and misleading in the light of the 20 days at work and 10 days at home rotation schedule that the Pan Arctic employees were actually working. The relevant point, however is that it did give the women a choice where their husbands would be home a greater proportion of the time, than the rotation schedule they were actually working.

work and two mentioned both of these reasons. When asked "what did you not like about his working for Pan Arctic last year?" six women said the loneliness they had experienced without the husband. And one mentioned problems in obtaining food while her husband was away.

All of the wives were asked "Did you have any troubles while your husband was away?" Only three women answered in the affirmative; one reported that she had been upset by his absence and two said they had had difficulties with other men. All of the wives were further asked "Were you worried or unhappy when your husband was away at work?" twenty-five women said no, and only ten said "yes", a much smaller proportion than among the Coppermine women. Eight of the latter said they were lonely, and two said they feared he would not return.

All of the women were asked "did you have less meat from hunting to eat while your husband was working for Pan Arctic because he could not go hunting so much?" Forty per cent of the wives answered "yes" and the remaining 60 per cent answered "no". We understand from informed whites in Arctic Bay, that while game is plentiful during the summer it is often much less plentiful during the winter. Thus the conclusion of these informants was that the work rotational arrangement established by Pan Arctic with workers employed for 20 days before their 10 day "long break" at home might result in some occasional shortages. However, most

of the time one would anticipate that the 10 days at home would afford men a very ample opportunity to go hunting and kill enough meat for their families to last the three weeks they would next be away. To fail to do so would be ascribable to lack of effort on the part of the hunter, or to lack of game in the area at the time. Rotation employment would increase the risk of both of these, no doubt, but the "blame" could certainly not be ascribed solely to the 20 and 10 day work rotation pattern.

Unfortunately we do not have information on hunting conditions in Pond Inlet.

Our interview data show that 21 per cent of the workers said they go hunting "every time" they are home on their long break; 24 per cent said they hunted "most of the time", 48 per cent said they hunted "once in a while", and 7 per cent said they hunted "not at all". It seems probable that most of the 27 single men fell in the latter two categories which included a total of 37 men, but this would still leave at least 10 married men who said they hunt only occasionally, if at all.

At both Arctic Bay and Pond Inlet hunters are able to kill game during the winter, though not as plentifully as in summer, however. Both of these communities are sufficiently unacculturated that there is yet extensive sharing of wild food around the settlement. Thus we feel confident that our data reflect not severe shortages, but rather the fact that



in 14 families there was less of an abundance of meat than the family had been used to in the past, but that this did not mean a scarcity of meat. This interpretation is supported by the fact that the very next question on the interview schedule asked whether the wife wanted her husband to go to work for Pan Arctic again next winter, and as we have seen, 86 per cent of the wives said that they did.

All of the wives were asked "Are there any changes in the work program you would like to see to make it better for you?" Six women made suggestions, five saying they would like to live close to the work site. One said there should be parity in wage rates for Inuit and white workers, apparently not realizing that this was in fact the case.

It seems quite clear from the interview data which we have reviewed that while many of these women were quite reluctant to have their husbands accept rotational employment with Pan Arctic, they eventually became quite accepting, if not enthusiastic about it. The only ones who were definite in not wanting their husbands to take such employment again the following year were the five whose husbands had found permanent employment in the settlement. It is noteworthy that these wives report less trouble and less worry during their husband's absences than did the Coppermine women. In this respect they are different from the contrast between their husbands and the Coppermine men. A higher proportion of them did report having less meat as

a result of their husbands' absences at work, as compared with the Coppermine wives, but this was not sufficiently serious for them to repudiate employment for the coming year.

Reactions of the Baffin children to their Father's employment with Pan Arctic. Questionnaire returns were obtained from 50 children of the Baffin Island workers. Most of these children, 36, lived at Arctic Bay, and the remaining 14 lived at Pond Inlet. Half of them were no more than 10 years of age, thirty per cent were aged 11 to 13 and 20 per cent were between 14 and 16 years of age. Thirty-two were girls and 18 were boys. Six of the oldest had had no schooling; the rest had completed between three and eight years.

As we found true of the Coppermine children, the Baffin Island children interviewed expressed enthusiastic support for their father's employment by Pan Arctic with few exceptions, thus to the question "Were you happy or unhappy to have your father working for Pan Arctic last winter?" 36 children said they were happy, six said they were unhappy and eight said both. Asked "What things made you happy" thirty-four gave as the reason the money earned, and two each mentioned toys they had received, and less crowded housing. Twelve did not respond.

The children also asked "What made you sad?" Fourteen children, 28 per cent of the total said they missed their fathers, or that they were lonely. The remainder did not respond. For most children the advantages quite clearly out-

weighed the costs, as is apparent from their responses to the question "Do you want your father to go to work for Pan Arctic again next winter?" Forty-two children, 84 per cent, said they did. The remaining eight children failed to respond, quite possibly because of ambivalence. The reasons given by all of the children wanting their fathers to be employed again all referred to the money he would earn. Of those eight who did not respond to the previous question, six said they would be lonely, and two said they would not be able to do things together with him.

When asked "Were you proud to have your father working for Pan Arctic last year?" all 50 of the children answered that they were.

Further indications of the children's emotional reactions to their experiences with a father absent because of rotational employment is found in their answers to questions relating to their preferences after they grow up. Thus boys were asked "Would you like to have a job like your father's where you go and work away from home for about three weeks and then come home for one week?" All 18 boys said that they would, giving as reasons the money to be made (12 boys) and the excitement of travel (6 boys). Similarly, the girls were asked "After you are married, would you like for your husband to have a job like your father's where he goes and works away from home for about three weeks and then comes home for one week?" Three fourths of the 32 girls in the sample



said that they would, and one fourth said they would not. Of the 24 responding affirmatively, 18 gave as their reason the money he would earn, four said it would free them from staying home with him all the time, and the remaining two gave no answer. Those responding negatively gave as reasons dislike for the long absences and loneliness (8 girls) their desire for a better job for their husbands (two girls) and that rotation employment was not hard enough work (two girls). (We are not able to interpret this latter response - perhaps there is some implication that it is not "manly" enough.) These responses give further support to the indications that while many of the children do miss their fathers they do not miss them profoundly, and that the material advantages resulting from their fathers' employment absences far exceed the emotional costs.

In summary, we have seen that while both mothers and children often miss the absent husband and father, and while the former experience a certain amount of worry, and occasional trouble during the absences, they would far prefer the men to continue working at this rotational employment, than otherwise.

#### Adjustment of Baffin Workers to Pan Arctic Rotational Employment

How well did the Baffin workers adjust to the rotational employment and to different aspects of the work situation:



these are the questions we seek to answer in this section. We shall present information on the work duration of the Baffin Island employees, their work persistence, and their work dependability, their work performance as rated by their supervisors and their "camp citizenship" ratings.

Work Duration. While 40 per cent of the 67 Baffin workers in this sample had begun their employment by the first day of December, 44 per cent began working no earlier than the first of January including 24 per cent who began in February. Thus 24 per cent could have worked no more than three months, and 44 per cent no more than four months, while 40 per cent could have worked for five or more months. In fact the median work duration was about 3 months. One quarter of the men worked for no more than 8 weeks, 31 per cent worked from 9 to 14 weeks, 25 per cent worked from 15 to 20 weeks, and 20 per cent worked longer than five months. These data may be summarized as follows:

<u>No. of Weeks Worked</u>	<u>Maximum Possible</u>	<u>Actual Workers Working This Long</u>
2 - 4	1.5%	6
5 - 8	3	18
9 - 14	39	31
15 - 20	16	25
21 - 25	33	15
26 +	7	5

The "maximum possible" column shows the proportion of workers who would have worked in each duration category if each

worker had worked as long as he possibly could. The "actual workers" column shows the proportion of workers who actually worked for each duration interval. These data show that while many of the workers did work far less than the maximum possible time, still a substantial proportion of them did work fairly close to the maximum number of weeks available to them!

Work Persistence. Work Persistence refers to how late in the season the employees were willing to work, how able they were to withstand the temptations to quit in order to go hunting in the fine spring weather. The data show that almost two thirds of the workers, 63 per cent, remained until after the first of May, and an additional 15 per cent terminated during the last two weeks of April, probably as a result of curtailing of operations rather than at their own behest. Only 20 per cent terminated before the first of April. The Baffin workers thus demonstrate noteworthy work persistence, distinctly superior to that of the Coppermine workers during the first year. Of course many of the Baffin Island men had worked several seasons for Pan Arctic by the time they were interviewed. Thus there is no indication in this work persistence data that the longer, 20 day work rotation interval is stressful as far as the Baffin workers are concerned, at least as reflected in a tendency to terminate early. This reasoning is further substantiated by the data on reasons for termination, which show that 42 per cent were either continuing or were terminated at the end of the season.

Work Dependability. The data on work dependability gives impressive indication of the work commitment of the Baffin workers, and of their ability to cope with the stresses of the 20 day work rotation interval. The data show that only one third of the workers had unauthorized work interruptions. All of the remainder did experience interruptions, but they were authorized or unavoidable. Again this record is particularly noteworthy because of the tendency of the Baffin workers to report disliking the separation from their families, and considerable concern about the welfare of their families while they are away from them.

Work Performance. Three items of data are available which bear on the quality of the work performance turned in by the Baffin workers: supervisors' ratings of the workers' work performances, their nominations of workers for inclusion on a first rate crew, and their ratings of workers' ability to withstand the stress of working in the Arctic. We shall consider each in turn.

Supervisors' ratings of "how well this man performs on the job", resulted in 31 per cent identified as excellent, (27 per cent) or "One of the best I've ever seen" (4 per cent); 30 per cent identified as slightly above average; 18 per cent identified as average, 12 per cent as slightly below average, and 9 per cent identified as "poor" or "one of the worst I've ever seen".

When asked "If you were picking a first rate crew, and could hand pick the men to work on this crew would you select this man?" the supervisors gave affirmative responses for 43 per cent of the Baffin workers.

Supervisors also rated the men on "how well this man stands the stresses and strains of work in the Arctic." Almost half, 49 per cent were rated as "excellent" (31 per cent) or as "One of the best I've ever seen" (18 per cent); 16 per cent were rated "slightly above average", 17 per cent were rated "average", 15 were rated "slightly below average" and 3 per cent were rated "well below average".

It is very clear, from the supervisor rating data which we have presented that these men were seen as superior workers by their supervisors. There are no indications that as a group their work performances suffered from difficulties they experienced in coping with the 20 day work rotation interval.

Camp Citizenship. Supervisors were asked to rate each worker on "how good a 'camp citizen' this man is: being reasonably friendly, co-operative and considerate of others, not causing friction or trouble?" Once again almost half, 49 per cent were rated "excellent" or "one of the best I've seen", 15 per cent were rated as "good", 15 per cent as "average", 13 per cent as "slightly below average" and 8 per cent were rated as "well below average". It is very clear, from these ratings, that emotional reactions to their absence from their



communities and families do not make these men noticeably moody, or surly, or cause them to behave in other ways reflective of poor camp citizenship.

### Conclusion

The conclusion to this section dealing with indicators of worker adjustment to the 20 day work rotation schedule can be very brief. In our judgement, on the work duration, persistence, and reliability indicators, the men turned in surprisingly satisfactory performances, particularly so given their very slight exposure to prior wage employment, and their reports of the emotional price that some of them said they paid for separation from their families. And when we look at the supervisor's ratings of these men in terms of their work performance and their camp citizenship, the results are even more outstanding. These men have coped very well with such emotional reactions as the 20 day work rotation may have cost them. It is to be emphasized, particularly, that these men represented not a select minority of the male labor force in Pond Inlet and Arctic Bay, but rather a fairly sizable proportion of the male workers in those two settlements. We are accordingly quite confident that if an equal proportion of the Southern Canadian white labor force were randomly selected to work at similarly hard or unfamiliar work, they would produce a much poorer work record, and would earn much poorer ratings by their supervisors on work performance.

## Consequences of Pan Arctic Employment for the Pond Inlet Settlement

The data for assessing the impact of rotation employment on the community of Pond Inlet is comparable with those available for Arctic Bay, and less complete than we had for Coppermine.

During the total period that Pan Arctic has employed men from Pond Inlet in their exploration program a total of about \$1,008,000 was paid in wages to workers from this community. This represents an average of about \$168,000 per year, or about \$4,100 per worker per year, ignoring the effects which raises and inflation have had during the six year period.

This kind of detailed income data are available only for the Pan Arctic workers, and only for the 1973-74 and the 1975-76 employment seasons. These data show that in 1973-74 the total earnings of the Pan Arctic workers was about \$382,119, or an average of \$4,392 for the 87 Pond Inlet workers who were employed by Pan Arctic at some time during that employment season. As in the case of Arctic Bay, Pond Inlet workers were employed by Pan Arctic throughout the whole year during 1975-76, from May 1, 1975 through April, 1976, although the number of employed during the summer months fell off somewhat. Nevertheless, there was a decline in the total amount of wages paid to Pond Inlet employees, to \$333,900<sup>2</sup>

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2. Wages for the month of April, 1976, were estimated.

for 1975-76, and the average earnings per worker fell slightly to \$4,700 for the 71 workers from Pond Inlet employed during the year.

We were not able to obtain comparable figures for those employed at Strathcona Sound. However we anticipate that the total earnings for these men would have been very much smaller, since the construction of the mine did not begin until May, 1974, and only four Pond Inlet men have ever worked there.

What were the consequences of this inflow of cash into the community? The data available permit us to describe liquor consumption, violence committed under the influence of alcohol and offenders brought before the Magistrate's Court, and neglect of pre-school children, as indexed by the incidence of respiratory infection among such children.

Data supplied by the Liquor Control Board shows that for the 12 month period from August 1, 1973, through July 31, 1974, \$11,866 worth of liquor was shipped from the Liquor Store in Frobisher Bay to Pond Inlet, a figure equal to \$21.58 per capita for this 12 month period, or \$1.80 per person per month. If we restrict ourselves to the oil exploration period, from Nov. 1, 1973 through June 30, 1974, the value of liquor imports into Pond Inlet was \$8,461 equal to a per capita expenditure of \$15.39 for this 8 month period, or \$1.92 per person per month. The value of liquor imported during the other four months of the year - August 1 to

Oct. 31, 1973 and July 1 through July 31, 1974 - was \$3,405, equal to a per capita per month value of \$1.55. There is a difference, accordingly in the per capita per month value of liquor consumed of \$.37 between the winter drilling season and the summer season, with the former the higher of the two. This differential provided some basis for suggesting that the 20 day work period may result in the build up of stresses, in either the workers or their wives, which are coped with by means of increased consumption of alcohol. However, another plausible explanation for the higher consumption during the winter period might well be that people spend much more time indoors during this season, especially during the evening, and that the differences in consumption are reflective of this, rather than stress resulting from the rotation employment. Inspection shows that the highest import month during the year under consideration was November, 1973, during which \$1,843 in liquor was imported. The next highest month was April, 1974, when imports were valued at \$1,660. By contrast, (and by contrast with Arctic Bay consumption patterns), the value of liquor imported during December and January was only \$1,091 and \$711 respectively. This suggests that in Pond Inlet, liquor is used to celebrate the onset and the termination of the winter employment season, by contrast with Arctic Bay where liquor is used to celebrate the termination of the winter employment season, and to celebrate the Christmas and New Year seasons. Why the



differences between these two communities should be so strong, as they are, especially as respects consumption in November, December and January, is not known. Nor, unfortunately do we have suggestions from long term white residents in Pond Inlet to help us out here.

These data were the earliest to be found in the records of the Territorial Liquor Store in Forbisher Bay, and accordingly it is unfortunately not possible to establish trends of liquor consumption in Pond Inlet since before the onset of employment of men from this community by Pan Arctic. However we should note that liquor consumption of the order of almost \$2.00 per person per month is a relatively low level of consumption. While almost twice that for Arctic Bay, the comparable figure for Coppermine during the same period was about \$2.50 per capita per month, and the figure for the whole of the Northwest Territories was about \$16.00 per capita per month.

Data on violent woundings in Pond Inlet when the assailant was drunk during the 1969-70 through the 1973-74 employment years are found in Table 7.6. Note must be made, of course, of the fact that the frequencies are very small, making interpretation difficult. Nevertheless it would seem clear that there is no indication of an increase in such woundings to be found in these data. The data do exhibit considerable fluctuation, but the fluctuations provide no basis for positing a trend, either toward an increase or

TABLE 7.5

Frequencies of Respiratory Infections in  
Pre-school Children, of Wounds Needing Suturing,  
and of Convictions in the Magistrate's Court in  
Pond Inlet for the Employment Years<sup>1</sup>  
1969-70 Through 1973-74.

Year	Respiratory Infections in Pre- Schoolers: Frequencies	Wounds Needing Suturing: Frequencies	Convictions in the Magistrate's Court
1969 - 70	173 <sup>2,4</sup> 138 <sup>5</sup>	19 <sup>2</sup>	4
1970 - 71	183	35	1
1971 - 72	135	15	2 <sup>6</sup>
1972 - 73	90	36	24
1973 - 74	162 <sup>3</sup>	13 <sup>3</sup>	30

1. The Employment Year is defined as beginning on November 1, and ending on October 31 the following year.
2. Estimated for November and December, the data being unavailable
3. Estimated for August 1 through October 31, 1971, the data being unavailable.
4. The influenza epidemic, which was very severe in Arctic Bay in March, 1969, hit less severely in Pond Inlet in February, 1969, and accounted for only 35 cases.
5. Frequency of respiratory infections adjusted grossly for the effects of the influenza epidemic.

toward a decline in these woundings.

Data on offenders brought before the Magistrate's Court in Pond Inlet during the same period are also found in Table

7.6. Again the same caution about difficulties of interpreting low frequencies certainly applies, but these data would appear to show a very significant increase in the number of Court convictions in recent years. We were told by the RCMP in Pond Inlet, however, that this increase should not be taken at face value, for two reasons. The first is that the people of Pond Inlet are showing a general increase in the tendency to lay charges against offenders, in contrast to the earlier pattern whereby the community would handle such matters through informal sanctions. The second reason is that more people in Pond Inlet have acquired telephones in their homes during the early 1970's. Before telephones were available, if one wanted to make a complaint to the Police about a drunken fracas it was often necessary to take a long, frequently cold walk to communicate with the RCMP. Now it is only necessary to reach for the telephone. The RCMP were confident that virtually all of the increases in convictions was to be explained by an increase in willingness to complain and in the ease with which complaints can be registered.

It seems very probable that some of this increase in convictions is to be explained by an increase in disorderly incidents. Unfortunately, however, the data on liquor imports into the community during this same time, which would provide a basis for testing this suspicion, are simply not available. Thus we are not able to resolve the question.

Finally, data on the incidence of respiratory infections in small children living in Pond Inlet during the 1969-70 through 1973-74 employment years are found in Table 7.6. These data show no indications of an increase in the incidence of respiratory infections in pre-school children which might be indicative of an increase in child neglect among Pond Inlet parents, tracable to the stresses of work rotation employment. The data do show some fluctuations, and the same curvilinear pattern to be noted in the data for Arctic Bay as well. But there is no trend which can be interpreted as reflective of an increase or a decrease in the quality of parenting in the community.

The 1975-76 Employment Season. As we noted earlier, during the 1975-76 employment season, projections made in April, 1976, suggest that the Pan Arctic workers will earn a total of \$333,900 from Pan Arctic Oil, an average of \$47<sup>00</sup> for each of the 71 workers employed during this season. Comparable income data could not be obtained from Strathcona Mineral Services which did employ a few men from Pond Inlet during this period, but their small numbers makes this lack of little concern.

It is possible to infer some of the consequences of this employment from recent data on liquor imports which are available. The data on liquor consumption during the period from July, 1974 through October 1975, shows that \$14,304 worth of liquor was imported into the community during this



period, which averages to a per capita per month value of \$1.63. This reflects a 10 per cent decrease over the \$1.80 per capita per month for the 1973-74 work season. This is particularly interesting since comparison of the import values for the April through July period for 1973 (the earliest monthly values available) with those for the same months in 1974 shows that there was a 88 per cent increase between 1973 and 1974 for the April - July period, from \$2486 to \$4669. Thus, like the Arctic Bay and the Coppermine data, the Pond Inlet data show a decline in liquor consumption, even in uncorrected dollar terms. If an adjustment were made for liquor price increases after 1973, the decline would be even more pronounced. These data thus provide no indication of a possible increase in stress in the Pond Inlet community resulting from difficulties in coping with rotational employment.

Unfortunately, the data on frequencies of respiratory infections in pre-schoolers of woundings requiring suturing and of cases brought before the Magistrate's Court are not available for 1975 and 1976, so we are not able to use these indicators to assess the effects of continuing rotational employment on the Pond Inlet community.

#### Conclusions.

The following conclusions are warranted on the basis of our examination of the data available. We are not able

to assert, on the basis of the community indicators that we have utilized, that the onset of heavy work rotational employment with Pan Arctic in the winter of 1971-72 was not associated with some early disruptive impact on the home community. Unfortunately the data which would provide one of the most sensitive indicators of such an impact, liquor importation and consumption, are non-existent prior to April, 1973. The data on the frequencies of respiratory infections in pre-schoolers show no evidence of an increase after the employment began in 1971. The data for the employment year periods show so much fluctuation -- never less than 45 cases between adjacent years -- that the variations in cases to be seen, as during 1970-71 and 1973-74, can only be interpreted as part of the general pattern of random fluctuations that these data exhibit.

Exactly the same conclusion must be placed on the data relating to woundings. The increases in 1970-71 and 1972-73 can only be interpreted as a part of the random fluctuation which the data generally reflect.

The same thing cannot be said of the data on convictions in the Magistrate's Court, but the apparent increase in these convictions must largely be understood as a consequence of an increased willingness to complain by the local people, and an increased ease of complaint resulting from the recent availability of telephones in the community. That these influences would totally explain the very sharp rise in convictions seems very doubtful, but a confident

conclusion based on these data seems equally difficult. The undeniable evidence of a recent decline in the value of liquor imported into the community must be seen as further justification for such a conclusion.

The overall collective pattern of these individually rather spotty data is sufficiently consistent in its failure to show any general trend, that we feel confident in asserting that the data available show no indications of increased stress in individuals or of increased problems in the community. Thus we must conclude that the employment of substantial numbers of Pond Inlet men by Pan Arctic on 20 and 10 day rotational work schedules has not produced any effects discernable to us in the data we have consulted, contraindicating the social or psychological desirability of this pattern of rotational employment.

Consequences of Pan Arctic Employment  
for the Settlement at Arctic Bay  
as of January 1, 1974

The data for assessing the impact of rotation employment on the community of Arctic Bay are less complete than we had for Coppermine, but a rather broad picture can yet be pieced together.

During the total period during which Pan Arctic has been employing Baffin Island workers it has paid out a total of about \$1,800,000 in wages to workers from Arctic Bay and

Pond Inlet. About \$792,000 of this amount was paid to workers from Arctic Bay. This represents an average of about \$132,000 per year, or about \$4,125 per worker per year, ignoring the effects which wage raises and inflation have had during the six year period.

This kind of detailed income data is available only for the Pan Arctic workers, and only for the 1973-74 and the 1975-76 employment seasons. These data show that in 1973-74 the total earnings of the Pan Arctic workers was about \$171,175 or an average of \$4,075 per worker for the 42 workers who were employed at some time during the season. During the 1975-76 season Inuit workers were employed by Pan Arctic throughout the whole year, from May 1, 1975 through April, 1976, although the number employed during the summer months fell off somewhat. Nevertheless, there was a decline in the total amount of wages paid to Arctic Bay employees, to \$147,700<sup>1</sup> for 1975-76, and the average earnings per worker fell to \$3,600 for the 41 workers employed during the year.

What were the consequences of this inflow of cash into the community? The data available permit us to comment on liquor consumption, violence committed under the influence of alcohol, and neglect of pre-school children as indexed by the incidence of respiratory infection among such children.

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1. Wages for the month of April, 1976 were estimated.



Data supplied by the liquor control board show that for the 12 month period from August 1, 1973 through July 31, 1974, \$3,551 worth of liquor was shipped from the Liquor store in Frobisher Bay to Arctic Bay, a figure equal to \$11.72 per capita, for this 12 month period, or \$.98 per person per month. If we restrict ourselves to the oil exploration period, from Nov. 1, 1973 through June 30, 1974, the value of liquor imports into Arctic Bay was \$2,486, equal to a per capita expenditure of \$8.21 for this 8 month period, or \$1.02 per person per month. The value of liquor imported during the other four months of the year - August 1 to Oct. 31, 1973, and July 1 through July 31, 1974, was \$1065, equal to a per capita per month value of \$.88. There is a difference, accordingly in the per capita per month value of liquor consumed of \$.14 between the winter drilling season and the summer season, with the former the higher of the two. This very small differential provided virtually no basis for suggesting that the 20 day work period results in the build up of stresses in either the workers or their wives which are coped with by means of increased consumption of alcohol. Rather a plausible explanation for the higher consumption during the winter period might well be that people spend much more time indoors then, especially during the evening, and that the differences in consumption are reflective of this rather than of stress resulting from the rotation employment. It should be noted that the highest import month

was May, 1974, when \$606 worth of liquor was imported. This probably is an indication of celebration of the end of the employment year - the fact that the next highest months were December, 1973 (\$472) and January, 1974 (\$472) strongly support this suggestion, that unusually heavy liquor imports are associated with community celebration activities.

These data were the earliest available in the records of the Territorial Liquor Control Store in Frobisher Bay, and accordingly it is not possible to establish trends of liquor consumption in Arctic Bay since before the onset of employment of Arctic Bay men by Pan Arctic. However two relevant points may be noted. The first is that liquor consumption of the order of \$1.00 per person per month is a very low level of liquor consumption. The comparable figure for Coppermine during the same period was about \$2.50 per capita per month, and the figure for the whole of the Northwest Territories was about \$16.00 per capita per month. The second is that we were told in the Fall of 1975 by knowledgeable whites in the community, whose knowledge of recent consumption values in the community checked with data supplied by the Liquor Control Board, that liquor consumption in the community had increased about 130 per cent since 1971. This is also a low rate of increase, about that of Canada as a whole and is particularly noteworthy given the very low rate of consumption which we are informed was found in 1971.

Data on violent woundings in Arctic Bay when the

assailant was drunk, during the 1969-70 through the 1973-74 employment years are found in Table 7.5. Note must be made, of course, of the fact that the frequencies are very small, making interpretation difficult. Nevertheless, it seems very clear that there is no indication of an increase in these woundings to be found in these data. This conclusion is further supported by the reports of informed whites who were interviewed in Arctic Bay. They report that there is little violence, that there is no beating up of women in drunken fights there, and that a sight which is very common in Coppermine on weekends, women with a "black eye", is very rare in Arctic Bay, occurring no more than twice a year.

Data on the offenders brought before the Magistrate's Court in Arctic Bay during this period are not available. No RCMP are stationed in Arctic Bay. This community together with Pond Inlet are under the same RCMP and Magistrate's Court jurisdiction, and both the Police and the Court are situated in Pond Inlet. We were told by white informants in the community that there was very very little violence in Arctic Bay, and accordingly that only the occasional case was brought before the Magistrate's Court involving Arctic Bay people. They were confident that there had been no increase in the frequency of these cases in recent years. On the basis of the records it was not possible to separate out the few Arctic Bay cases from the larger number of Pond Inlet cases. Accordingly all of these data are presented in connection with Pond Inlet. We can conclude, however, that there is no evidence

of a significant increase in infractions resulting from the stresses generated in the community by rotational employment.

Finally, data on the incidence of respiratory infections in small children living in Arctic Bay, for the 1969-70 through 1973-74 employment years are found in Table 7.5. Once again, these data show no significant indications of an increase in the incidence of respiratory infections in pre-school children which might be indicative of an increase in child neglect among Arctic Bay parents, due to the stresses of work rotation employment. We are not able to explain the pronounced curvilinear pattern which the data demonstrate. The data for Pond Inlet show the same pattern. Inspection of the detailed data shows that generally the pattern is found throughout the year, rather than being restricted to the winter or spring months, for example.

The 1975-76 Employment Season. During the 1975-76 employment season, projections made in April, 1976 suggest that the Arctic Bay workers will earn a total of \$147,700 from Pan Arctic Oil, an average of \$3,600 for each of the workers employed during this season. Unfortunately, comparable income data could not be obtained from Strathcona Mineral Services which did employ at least 35 men from Arctic Bay during this period.



TABLE 7.6

Frequencies of Respiratory Infections in  
Pre-School Children, and of Wounds Needing  
Suturing, in Arctic Bay for Employment Years<sup>1</sup>  
1969-70 Through 1973-74.

Year	Respiratory Infections in Pre-Schoolers: Frequencies	Wounds Needing Suturing: Frequencies
1969 - 70	278 <sup>2,4</sup> 178 <sup>5</sup>	3 <sup>2</sup>
1970 - 71	129	3
1971 - 72	47	2
1972 - 73	96	3
1973 - 74	122 <sup>3</sup>	3 <sup>3</sup>

1. The Employment year is defined as beginning on November 1, and ending on October 31 of the following year.
2. Estimated for November and December, 1969, the data being unavailable.
3. Estimated for August 1 through October 31, 1974, the data being unavailable.
4. This very high frequency is explained by an influenza epidemic in March, 1970 which alone accounted for 100 cases during that month. Thus we are confident that it does not reflect child neglect.
5. Frequency of respiratory infections, adjusted grossly for the effects of the influenza epidemic.

It is possible to infer some of the consequences of this employment from recent data on liquor imports which are available. The data on liquor consumption during the period from

July, 1974 through October, 1975 shows that \$3353 worth of liquor was imported into the community during this period, which averages to a per capita per month value of \$.69. This reflects a very substantial decrease over the \$.98 per capita per month for the 1973-74 work season. This is particularly significant in view of the fact that construction of the Strathcona Sound mine began in May, 1974, thus offering summer employment opportunities to men who would not normally have had them, and making wage employment available very close to the settlement for those who did not want to separate themselves from their families for long periods and over great distances. Clearly, if liquor consumption is associated with rotation work employment stress at all, these liquor consumption data suggest that such stress certainly is not increasing, and may, in fact be declining.

Unfortunately, the data on frequencies of respiratory infections in pre-schoolers, of woundings requiring suturing, and of cases brought before the Magistrate's Court are not available to us for 1975 and 1976, so we are not able to use these indicators to assess the effects of continuing rotational employment on the Arctic Bay community.

### Conclusions

The following conclusions are warranted on the basis of the examination of the data available. We are not able

to assert, on the basis of the community indicators that we have utilized that the onset of heavy work rotational employment with Pan Arctic in the winter of 1971-72 was not associated with some early disruptive impact on the home community. Data with respect to one rather sensitive indicator, consumption of liquor, are unfortunately non-existent this early. The data of incidence of respiratory infections in pre-schoolers shows a decline in such infections over the first pre-employment year, during the 1971-72 employment year, and an increase in 1972-73 and 1973-74. The variations in these data are so extreme, however that both the declines and the increases exhibited by the data must be interpreted as random fluctuation.

The information available to us on the frequencies of woundings requiring suturing, and of cases brought before the Magistrate's Court warrants the confident conclusion that these indicators reflect no increase in problems in the community since the onset of heavy employment. Finally, the recent data on value of liquor imported into the community reflect a distinct decline in such imports.

The overall pattern of these individually rather spotty data is so consistent that we feel confident in asserting that the data available show no indications of increased stress in individuals or of increased problems in the community resulting from employment of substantial numbers of Arctic Bay men by Pan Arctic on 20 and 10 day rotational work schedules.

## Response to the Work Situation

### A Comparison of Baffin Island and Southern White Workers

During the Fall of 1974, at the time that the interview and supervisor rating data were collected for the Baffin Island workers which were reported on above, similar data were collected for southern white employees of Pan Arctic Oil working on the three drilling rigs, and at the Rae Point base camp operated by Pan Arctic that fall. Virtually all of the white workers who were at the work sites at that time were included. A very few we were never able to "catch" off duty, or refused to be interviewed. We have not presented the data for the white workers for separate analysis because they are irrelevant to the terms of reference of this study. However a distinctly relevant issue relates to the comparative performances of the Baffin Island workers and the white workers. How do the responses of the former group to the work rotation situation, compare with those of the white workers, in terms of work duration, work persistence, and work dependability, and in terms of the Supervisor's ratings on work effectiveness?

The particular significance of this comparison lies as we noted earlier, in the fact that in certain respects the white workers are "voluntary" workers in the work rotational context in which they were employed, whereas the Baffin Island workers were involuntary. The white workers were voluntary in the sense that there were other work opportunities



available to them in the South. They chose rotational work employment because there were some aspects of this work which they preferred in contrast to the other kinds of work which were available to them in the south. They were thus clearly a select minority of southern workers who deliberately opted for the distinctive features of work rotation employment in the North.

The Baffin workers, by contrast, were involuntary workers in the work rotational context, simply because virtually none of them had alternative wage employment opportunities: their only choice lay between accepting rotation employment or not working for wages at all. Accordingly the men of Arctic Bay and Pond Inlet who accept employment with Pan Arctic are choosing between employment under rotation conditions, and no employment at all. Thus they do not represent a highly select sample of workers as in the case of the whites, but a very large proportion of the total male labor force from the two Baffin communities.

In this comparison, by contrast with the comparison which we made earlier in the case of the Delta and Coppermine workers, we have not attempted to hold the level of the work position constant, for several reasons. In the first place we found that it made no difference in the earlier set of data whether we included the white drillers, derrickmen and motormen in the analysis, or not. In the second place, our sample of whites working for Pan Arctic includes only 63 men.

If we were to separate out the higher skill level white workers and discard them from the analysis, the remaining would be so small as to make it prone to random fluctuation. Accordingly in the comparisons which follow we are comparing the total, undifferentiated sample of white workers who were working for Pan Arctic in the early Fall of 1974, with the total undifferentiated sample of Baffin Island workers who worked for Pan Arctic during the 1973-74 season, and for whom we could obtain work performance ratings from their supervisors. Note that such bias, as is introduced by these discrepancies in level of position of white and Inuit workers, works against the latter. Thus our analysis is inherently conservative underestimating the comparative adjustment of the native workers.

The issue with which we are concerned in this section is whether there is evidence to be discerned, in a comparison of the responses which white and Baffin Island workers make to their rotational employment by Pan Arctic, which would be indicative of less ability to cope with the circumstances of this employment on the part of the relatively unselected Baffin Island workers, as compared with the highly selected (that is, non-random) Southern white workers.

In the pages that follow we shall first look at the data available to us on the comparative work duration, work persistence, and work dependability of the Baffin Island and Southern white workers, and then at the ratings which their

supervisors gave them on work effectiveness and on camp citizenship.

Work Duration. In Table 7.7 is found a tabulation of the number of weeks actually worked by the workers for whom these data are available. The most striking aspect of the data in the table is that the mean number of weeks worked during the 1973-74 season was identical for the Baffin and the white workers. Closer examination of the data show that the white workers are somewhat over-represented in the 0 to 4, and the 26 plus weeks worked categories, while the Baffin workers are somewhat over-represented in the intervening, and particularly in the 15 to 20 week category. Such variations must be attributable, at least in part, to the small samples we are dealing with.

TABLE 7.7

Number of Weeks Worked for Pan Arctic Oil During  
the 1973-74 Employment Season by  
Baffin Island and White Workers (Percentages Only)

<u>No. of Weeks Worked</u>	<u>Baffin Workers</u>	<u>White Workers</u>
1 - 2 weeks	0.0	4.8
2 = 2 - 4	6.0	7.9
3 = 5 - 6	9.0	6.3
4 = 7 - 8	9.0	11.1
5 = 9 - 10	9.0	6.3
6 = 11 - 14	22.4	19.0
7 = 15 - 20	25.4	12.7
8 = 20 - 25	14.9	12.7
9 = 26 +	4.5	19.0
Mean	5.9	5.9
Total Workers	67	63

TABLE 7.8

Dates of Termination of Employment at the  
End of the 1973-74 Employment Season  
for Baffin Island and White Employees of Pan Arctic Oil  
(Percentages only)

<u>Date Terminated</u>	<u>Baffin Workers</u>	<u>White Workers</u>
Date Ended After:		
1. May 1, 1974	62.7	65.1
2. April 16 - 30, 1974	14.9	1.6
3. April 1 - 15, 1974	1.5	20.6
4. March 16 - 30, 1974	1.5	4.8
5. March 1 - 15, 1974	3.0	3.2
6. February, 1974	4.5	0.0
7. January, 1974	7.5	1.6
8. December, 1973	0.0	1.6
9. November, 1973	4.5	1.6
Total Workers	67	63

TABLE 7.9

Number of Interruptions in Their Work Schedules  
Experienced by Baffin and White Employees of Pan Arctic  
During the 1973 - 74 Season ( Percentages Only)

<u>Number of Work Interruptions</u>	<u>Baffin Workers</u>	<u>White Workers</u>
0	0.0	90.5
1	43.3	4.8
2	31.3	1.6
3	14.9	1.6
4 or more	10.5	1.6
Total Workers	67	63



Work Persistence. In Table 7.8 is found a tabulation of the dates for termination of employment at the end of the 1973-74 employment season for Baffin Island and white employees of Pan Arctic Oil. Once again the data show insignificant differences in the patterns of the two groups. On the one hand, a higher proportion of Baffin Island than of white workers terminated prior to March 1 - 16 per cent as compared with 5 per cent - and prior to April 1, 18 per cent as compared with 13 per cent. On the other hand, however, 21 per cent of the whites quit during the first two weeks of April, as compared with 2 per cent of the Baffin workers, and during the whole of that month, 22 per cent of the whites, as compared with 16 per cent of the Inuit. The result is that insignificantly more whites than Inuit worked after the first of May.

It was further possible, with the data available to classify the reasons for the termination of workers into "legitimate" and "not legitimate". Reasons were classified as "legitimate" when workers in fact had not been terminated, or had been transferred, or had been terminated because of an accident or illness. Reasons were classified as "not legitimate" when workers were fired or terminated for reasons other than accident or illness. Legitimate reasons for termination were reported for 45 per cent of the Baffin workers and for 40 per cent of the white workers. Thus on this criterion as well there are no significant differences in response to the worksituation between the white and the Baffin workers.

Work Dependability. In Table 7.9 are found data on the number of interruptions in the workschedule experienced by the Inuit and the white workers, that is the number of times that a worker missed a work shift after his long break. Predictably the data show that all of the Inuit workers experienced at least one interruption, while only 10 per cent of the white workers experienced such interruptions. The explanation for this differential is at least two-fold. In the first place, the Inuit workers were hired from a work pool, so that there was some expectation among the members of the pool that work opportunities would be shared. Thus it would have violated the norms of the pool arrangement if any of the Baffin workers had had no interruptions of their work schedule. The second reason is that most of the white workers were members of integrated work teams, drilling crews.

TABLE 7.10

Supervisors' Ratings on Work Performance of  
Baffin and White Workers of Pan Arctic Oil,  
for the 1973-74 Season (Percentages Only)

<u>Supervisors' Ratings</u>	<u>Baffin Workers</u>	<u>White Workers</u>
One of the best	4.5	6.3
Excellent	26.9	22.2
Good	29.9	38.1
Average	17.9	30.2
Weak, slightly below average	11.9	3.2
Poor, well below average	7.5	0.0
One of the worst	1.5	0.0
Total Workers	67	63

TABLE 7.11

Supervisors' Ability to Withstand Stress\*  
 Ratings of Baffin and White Workers of  
 Pan Arctic Oil, for the 1973-74 Season  
 (Percentages Only)

<u>Supervisors' Rating</u>	<u>Baffin Workers</u>	<u>White Workers</u>
One of the best	17.9	4.8
Excellent	31.3	20.6
Good	16.4	34.9
Average	16.4	28.6
Weak, slightly below average	14.9	11.1
Poor, well below average	3.0	0.0
One of the worst	0.0	0.0
Total workers	67	63

\* Ratings on the item "How well does this man stand the stressed and strains of work in the Arctic?"

Because of the importance of teamwork in these crews, the absence of a crew member has very serious consequences, not only for the work efficiency but also for the work safety of the crew. Thus there were very strong pressures, and very strong official sanctions as well, operating to maximize the work dependability of the white workers. Not only did such pressures not exist in the case of the Inuit workers, but in fact counter pressures were in force.

Supervisors' Work Performance Ratings. The results of supervisors' ratings of the Inuit and white workers on

their performance on the job" are found in Table 7.10. Consistent with our findings thus far, the data do not show very large differences between the two worker groups. Slightly more of the Inuit workers (31 per cent) than the white workers (28) were rated "excellent" or "one of the best", and more of the Inuit than white workers were classified as "average" (18 per cent vs. 30 per cent) and as below average (21 per cent vs. 3 per cent). We are confident that if it were possible to control for age differences and level-of-skill differences between the two groups, the differences which do exist between the two groups in their work performance ratings would disappear.

Supervisors' Ratings on Ability to Withstand the Stress of Arctic Work Conditions. By contrast with the ratings on work performance, the supervisors' ratings of the Baffin workers were distinctly superior to those of the white workers, as the data in Table 7.11 show. Thus 49 per cent of the former were rated as excellent or better, as compared with 25 per cent of the latter. At the other extreme, however, 18 per cent of the Inuit workers, as compared with 11 per cent of the white workers, was rated below average in ability to withstand the stress of Arctic work conditions.

Supervisors' Nominations of Workers for Inclusion on a "First Rate Crew". The work supervisors were asked to answer the question "If you were picking a first rate crew, and could



TABLE 7.12

Supervisors' Ratings on "Camp Citizenship" of  
Baffin and White Workers of Pan Arctic Oil,  
for the 1973-74 Season  
(Percentages only)

<u>Supervisors' Ratings</u>	<u>Baffin Workers</u>	<u>White Workers</u>
One of the best	7.5	7.9
Excellent	41.8	20.6
Good	14.9	36.5
Average	14.9	30.2
Weak, slightly below average	13.4	3.2
Poor, well below average	7.5	1.6
One of the worst	0.0	0.0
Total Workers	67	63

pick the men to work on this crew, would you select this man?" for each of the workers they rated. A significantly higher proportion of white workers than of the Inuit workers received affirmative ratings. The proportions were 43 per cent for the Inuit, and 64 per cent for the White workers.

Supervisors' Ratings of Workers on Camp Citizenship. These ratings were obtained in response to the question: "How good a 'camp citizen' is this man: being reasonably friendly, co-operative, and considerate of others, not causing friction or trouble?" The distribution of ratings on this item of the Inuit and the white workers is found in Table 7.12, which shows that the Inuit workers were rated significantly

higher than were the white workers. Thus 49 per cent of the Inuit were rated "excellent" or higher, as compared with 28 per cent of the white workers. At the other extreme, somewhat more Inuit than white were rated below average, the proportions being 21 per cent vs. 5 per cent. Thus in this respect as in others discussed above, the Inuit workers showed a wider range of variability than did the Whites, as well as being generally superior to the whites.

Summary and Conclusion. The data that we have reviewed on the response of Inuit and white workers to the 20 days at work and 10 days at home rotation pattern that they were involved in has yielded the following pattern of results. There was consistently more variability in the Inuit performance and rating indices than there was for the whites. On two of the indices there were no differences, or only insignificant differences between the two groups of workers: work duration and work persistence. On two indices the white workers were clearly superior - nominations for membership on a "first rate crew" and work dependability, that is, number of interruptions. However we emphasized with respect to the latter that there were compelling structural reasons why the Inuit workers had many more work interruptions than the whites, so this differential should be discounted. There were two indices on which the native workers were clearly superior - ability to withstand the stress of working in the Arctic, and

camp citizenship. On the final index, the work performance rating, the Inuit workers received both more "excellent" ratings, and more "below average" ratings than did the white workers, somewhat more of the latter than of the former.

The inescapable conclusion for this study, however, is that there are no indications in the data that we have reviewed, suggesting that the essentially unselected workers from Pond Inlet and Arctic Bay respond any differently to the stresses of working a 20 day at work and 10 day at home rotation schedule, than do the highly selected white workers. It is clear that there is more variation among the Inuit, and there are a few individuals whose response to this work rotation situation is unsatisfactory so that they should not be further employed at work having this configuration. However looking at the whole group, since the responses of the Inuit workers to the work situation are quite comparable with those of the white workers, we must conclude that the "20 and 10" work rotation schedule works no distinctive hardship on them, and no hardships of a magnitude worthy of particular concern.

#### General Summary and Conclusions.

The data which we have been able to examine with respect to the consequences of the rotational employment available to the residents of Pond Inlet and Arctic Bay have

included the following:

Opinions and reactions of workers, wives, and children in Arctic Bay and Pond Inlet relating to the 20 days at work and 10 days at home rotation schedule established by Pan Arctic.

Work performance and supervisor rating indicators of these Baffin Island workers employed by Pan Arctic under this rotation schedule.

Comparison of the work performance and rating indicators of the Baffin Island Inuit workers with those of the white workers employed by Pan Arctic.

Indicators of the effects of the Pan Arctic rotational employment on family and community life in Pond Inlet and Arctic Bay, including data on Liquor imports, respiratory illnesses in pre-schoolers, woundings, and convictions in the Magistrate's Court.

NONE of these various kinds of data give indication of significant adverse, or painful, or dangerous, or costly psychological or social effects of the rotational employment which would contraindicate the continuation of this rotational employment, at least for the current populations of these communities, or by extension, similar communities.



## CHAPTER VIII

### THE THIRTY DAYS AT WORK AND SEVEN DAYS AT HOME ROTATION SCHEDULE OF HIRE NORTH

#### Background

The Hire North program was developed to accomplish three interrelated goals: (1) to provide training for some of the young native men of the Northwest Territories in the operation of heavy duty equipment and in the techniques of road construction; (2) to make a contribution toward construction of the Mackenzie Highway; and (3) to provide employment, and particularly winter employment, for some of the people of the Northwest Territories.

Following the announcement of Prime Minister Trudeau in the spring of 1972 that construction was to begin immediately on construction of the Mackenzie Highway, the Hire North program began operation on August 1, 1972 with the opening of two camps, each accommodating 60 men who began hand-clearing of the highway right-of-way. The third camp, housing 70 people, was for learning the operation of heavy duty equipment, who soon began building a portion of the highway was established in April, 1973. During the peak period of operation a maximum of 180 men were employed at these three camps.

The rotation schedule provided for a 30 day work period, after which the camp workers who included both men and women were

returned home for their long break. Such a long work period was established apparently because the work periods in construction camps in the North are typically long, commonly running from four to eight weeks, and 16 weeks is not unusual. Thus it was felt that men learning road construction skills should be exposed to at least a minimally typical work period. Those workers who quit or ask to be returned home before the 30 days is up, for other than compassionate reasons, must pay their own way home.

Hire North expectations in respect to the length of the long break at home, were flexible. In the case of the heavy duty equipment operator trainees, the expectation was clearly that at the end of the work period they would have seven days at home. In fact many took longer, perhaps up to six weeks or more, and the Hire North staff came to expect this, and did not try to insist on an earlier return. In time the staff came to view the operator trainees as constituting a pool which they were in the process of training. If a trainee failed to return to the camp on schedule someone else, who may or may not have had prior training experience in the Hire North camp, but who was on the waiting list, went in his stead. When a tardy trainee finally reported back he was sent out to camp if there was an opening. Otherwise he was placed on a waiting list, and went back to camp when there was an opening.

In the case of the laborers at the operations camp, the expectations and the practice regarding the length of the "long break" and the handling of cases where men over-stayed their

period at home were exactly as described above, during the 1975-76 season. However in previous years the laborers at the operators camp in fact "signed on" only for a single 30 day work period at one time. When they returned from their visit home, whether at the end of one, or two, or three or more weeks, they were sent out to whichever of the three camps had a vacancy. If there was no vacancy they were put on a waiting list.

Thus it is clear that in the case of the operator trainees as well as in the case of the laborers, Hire North came to respond as though the men comprised a pool, from which the available openings were filled on a "first come first serve basis". This should be borne in mind in reading the following pages.

During the first few years of the program, when it was generously funded, those in the camps typically worked 12 hours a day, seven days a week, during their 30 day work period and were paid "time and a half" after 44 hours a week. More recently tighter budgets have necessitated cutting back on the amount of overtime that is worked with the result that the work day has been cut back to between nine and eleven hours, depending upon work pressures, and the work week has been reduced to six days. The camp superintendent reports that with these reductions in the number of hours worked there are increased problems in keeping those in the camps occupied. Accordingly it is relevant that the information obtained in interviews with workers at the camp, reported later in this chapter, were collected in August,

1976, at a time when these reduced working hours were in force.

The two right-of-way clearing camps were in operation for only three years. They were eventually closed as a result of a shortage of funds and mounting opposition to the Highway project in some of the native communities, particularly Ft. Wrigley. These camps, which are now closed up are located at mile 583 and mile 533 along the right-of-way from the Alberta border. The road building camp is located at mile 410, about 96 miles downstream from Ft. Simpson, and 20 miles upstream from Ft. Wrigley, in the Northwest Territories.

Both the right-of-way clearing and the road building camps required a variety of types of personnel, and trainees were an integral part of the operation in all aspects where it was possible to do so. Thus the staff of a clearing camp consisted of a camp superintendent, a shop superintendent in charge of the mechanical repair shop, a time keeper, a camp attendant, cooks, foremen, welders, mechanics, a laundry staff, heavy duty equipment operators, bridge builders -- experienced in building Bailey bridges -- and the labor crewmen who were doing the hand clearing. The staff of the road building camp is essentially similar, except that it does not have the bridge builders and it has more heavy duty operators and fewer laborers.

Once these camps were set up, the clearing camps operated only between freeze-up and break-up, November till April, in order to avoid damaging the terrain as would happen if clearing were carried on during the rest of the year. The construction camp, by contrast, operated throughout the year, with the excep-



tion of the months of December and January when the camp is shut down to permit the workers to be home during the holiday season, and working conditions are less satisfactory because of the short daylight period.

The camps themselves are typical Porta-Built trailer construction camps. The workers sleep in trailers, in small compartments which are about 9 feet square, having provision for two men per compartment, with four compartments per trailer. The dining room-kitchen, is housed in a triple-trailer unit, and the lavatory-laundry, and recreation room are each housed in double-wide trailer units. In addition there are classroom, first aide, and office trailers. Separate facilities are provided for the women who work in the kitchen, the laundry, and the office. The recreation room is equipped with two pool tables which are almost constantly in use, a shuffleboard, a video tape input television set, a motion picture projector for projecting the two new films which are sent out to camp each week, card tables, a small library of mostly paperbacked books, and newspapers. Coffee, tea, hot chocolate, sandwiches and cookies are available here as well most of the time during the evening.

The construction camp is located in a well-sheltered and treed vale, a few hundred yards from the Mackenzie River. The power generator, fuel tanks, large repair shop, and equipment parking area are grouped together, a short distance from the rest of the camp. The two clearing camps are apparently similarly situated.

The camp is operated as a "dry" camp. Intoxicated workers

are fired and those found to have a bottle suffer confiscation of their liquor. With but one or two exceptions there have been no difficulties in maintaining this policy.

As is typical at most construction camps, no charge is made for the camp accommodations. The food served during the researcher's visits was plain but good and there was plenty of it. The menu served is typically Anglo-Canadian, but bannock bread and cariboo meat are served occasionally.

Observations of Camp Life by the Researcher. During his visits to the training camp in 1975 and 1976, the researcher spent a total of about 4 days at the camp. During this time he was able to observe early morning getting up and breakfast routines, departure for work and return from work, behavior in the dining hall, and interaction in the recreation hall.

The major impression received was one of easy compliance with a familiar routine in people's activity around the camp, and of relaxed familiarity and fellowship in the dining hall and the recreation room in the evening. In the dining room, there was relatively little mixing between the white and native people, but this appeared to largely reflect differences in work activities. Thus most of the natives were employed working on the road in one capacity or another, while most of the whites were involved working on the repair shop. Generally the tone reflected quiet, good-humoured conversation, with no overtones of tension or resentment at all.

In the recreation room there was more mixing of whites and natives. Both at the two pool tables, which were constantly in

use, and in the card games, whites and natives were often involved in the same activity. The camp superintendent reported that he had worked particularly hard to promote this kind of integration, and this was apparent in the recreation room during the nights that I was there. He was active in suggesting integrated groupings of participants, and expressed interest in the activities of most who came by during the course of the evening. The sincerity, and the success of his efforts in promoting comfortable integration of the native and non-native components of the camp was quite apparent while the researcher was at the camp.

#### Sources of Data

By the time that this study was commissioned, the road clearing camps had been shut-down indefinitely, since the future of the highway was in doubt. Two trips were made by the investigator to the construction camp, in early October, 1975, and in early August, 1976. During the first trip, information was obtained on the origins and operation of the program at the Hire North office in Ft. Simpson, observations were made on the daily cycle of camp life, and interviews were held with the Director of the Hire North Program, the Superintendent of the Construction camp, the shop supervisor, and the construction supervisor.

During the second visit, 10 months later the coordinator and the new Director of the Hire North Program, and the new Camp

Superintendent were interviewed and "updating" interviews were held with several other personnel who were interviewed previously. In addition interviews were also held with all of the workers who were in the camp at that time -- 29 men and 7 women.

Some further, essentially statistical data were also obtained from the files of Hire North. During its peak period, no fewer than 180 workers were employed at the three camps at any one time, not counting those taking their long break at home, as noted earlier. In all, no fewer than 1,260 persons had experience working for Hire North during the period from August, 1972 to December, 1975. However a search of the Hire North files by a Hire North employee who was familiar with the filing system resulted in information on only 176 persons on the rolls who had experience in the operators training camp. It is clear from other information available, that this listing is not complete. The available socio-economic background data, and information on years employed, work duration, job levels, and job promotion, were abstracted and coded for computer analysis from the records in the Hire North office. Unfortunately, however, these data are quite incomplete in the majority of cases.

Another set of data received from Hire North is the result of a follow-up study which was made in the Hire North office in an effort to ascertain the current employment status of those who had passed through the heavy duty equipment operator training program as of August 31, 1976. Some information is available on former trainees from this source.



Information Supplied by Superintendents  
and Supervisors

The interviews held with the Superintendent and the supervisors, in both 1975 and 1976 centered on the subject of the work adjustments of the workers at the operator training-road construction camp. It must be reiterated that the workers in question ranged all the way from unskilled laborers, doing what was essentially "pick and shovel" work, to a few very competent heavy duty equipment operators who had had the benefit of two or three seasons of training. They included women as well as men, and middle-aged as well as the predominantly youthful workers. Although the largest proportion came from Ft. Simpson, no fewer than 16 communities from the Mackenzie drainage, and three communities from the Arctic coast were represented among those with Hire North experience.

Hiring. Workers are hired for the Hire North operation, either at its office in Ft. Simpson, or through the Manpower representatives who are found in each of the settlements. The latter are helpful as well in keeping in touch with employees during their "long breaks", which often become extended as we have noted. When it becomes apparent that such a worker is running out of money, or is about ready to return to the camp for other reasons, the Manpower representative contacts the Hire North office in Ft. Simpson, and arrangements are made to provide the necessary transportation. In such ways the attempt has been made to insure that work continuity would be easy for those

with little prior employment experience. However these steps were taken more frequently in earlier years when the project was generously funded, and often had vacancies so that it was able to employ people whenever they presented themselves. More recently, and especially since the closing of the two clearing camps, the demand for positions is well in excess of the available openings. Under these circumstances much less solicitous efforts are now made to safeguard the employment interests of workers during their long break at home. If they return at the end of 7 days, as they are supposed to, they invariably find their job waiting for them. However if they take very substantially longer, and especially if they have not been in communication with the Hire North office, they may find that their position has been given to another, who has been on a waiting list.

Remuneration. The wages paid at all levels in the Hire North Camp during the 1975-76 season were generally competitive with those paid for comparable work in other parts of the Territories. The result is that workers at the camp receive large pay cheques primarily because of the overtime hours they work. During the 1975 season, the starting wage was \$4.00 per hour, and it was possible for an equipment operator trainee who applied himself very well to qualify for a series of raises so that by the end of the first season he might be earning \$5.50 per hour. During the second season he could easily rise to the level of \$6.00 per hour. The top rate during that season, \$6.50 was earned only by the few operators with years of experience who were working as "finishers".

During the 1976 season, the base pay for laborers was \$4.75 per hour. New apprentice heavy duty equipment operators began at \$4.50 per hour and could earn as much as \$6.00 per hour, and journeymen operators qualified for about \$7.00 per hour, as did experienced vehicle servicemen, welders, and mechanics.

All workers are paid by cheque on the 10th of each month. They may obtain an advance on their pay cheque on the 25th of the month as well, if they want. To qualify for the advance, a worker must have worked a minimum of five days on this work period, and the advance received was equal to \$10.00 per each day he had worked since the last pay period.

Camp Adjustment of Workers. The information on camp adjustment of the workers supplied by the supervisors included observations on homesickness, shyness, and worrying evidenced by new workers. Generally it was true that the new native workers tended to mask their feelings, however they were quite apparent to the more perceptive of the supervisors. Thus the most obvious indication of homesickness or "lonesomeness" was the tendency for some to quit the job suddenly, without giving any reason. Those who were from the more isolated settlements, and who were younger and who had girl friends at home were reported to be particularly vulnerable. The third week of the first work cycle was typically the period of maximum vulnerability: by then the newness and the excitement of the camp and the work situation had worn off, and it still seemed a long time till the work period would be up. In the face of this kind of

emotional response, those who "stick it out" are most frequently those who are out to make a "stake" (a sum of money for a particular purpose) or who have a strong interest in becoming a skilled H/E operator.

Shyness is also more characteristic of those from the smaller, more isolated areas. Such people usually communicate only minimally with whites. The result is that it is usually difficult to get information from them on previous work experience; the most commonly received answer is "yes", because it is less tension arousing than is "no". Such tendencies make it difficult for the trainer to work with his trainees, and contributes to misunderstandings. However typically in the course of 30 days in the camp they learn to mix a bit with whites, and those who do learn this well typically make the best adjustment on the job. Those who make little progress in this area usually are not able to persist on the job for a very long period of time.

Worrying about absent loved ones, like homesickness and shyness is typically masked, but is quite common in the opinion of the more experienced supervisors. Together with homesickness and shyness and the problems that native people often have in communicating such conditions to whites, these may account for the problems which a few workers have in getting up in the morning. It is noteworthy that most of the camp-workers have not evidenced this difficulty. The typical pattern, retrospectively however, is that when a worker wants to quit, but is afraid to come in and tell the camp superintendent that he wants to, he may oversleep to the point where he gets himself fired. Those



who have the kind of difficulties adjusting to camp which we have been discussing are most prone to this resolution of their difficulties.

Work Performance. The supervisors who were interviewed had rather clear and consistent ideas about what kinds of trainees turned in the best, and what kinds of trainees turned in the worst work performances. All agreed that those from the least acculturated settlements who were the best: they were better workers, more interested in their work, wanted to learn; and they presented fewer discipline problems. The least satisfactory men came from the largest communities in the Northwest Territories. Although they had usually had prior relevant work experience, they typically showed less interest in learning, and a less cooperative attitude on the job. They more often returned from their "long break" showing signs of having been on an alcoholic "binge" and took several days to get back on their feet again.

It was further reported that the younger men were typically easier to work with, and were willing to try, but rarely showed indications of being really committed to learning. The older men were more often "hard to get along with", belligerent, and given to "goldbricking" on the job.

Generally commonly encountered problems were lack of commitment to learning and to the job, lack of respect for the machinery, and resistance to setting a good work pace.

Work Persistence. Work persistence is the concern of all northern employers and as we have seen it is often difficult to

tain good persistence records with many northern native employees. Later we will present some statistical data on the work persistence of Hire North employees, but the supervisors who were interviewed had some observations based on their experience in the camp. One, predictable comment, was that those who were able to hitch-hike home from Ft. Simpson, and who thus would not have to pay for their transportation home if they quit before their 30 day work period was over, were more prone to quit than those who would have to pay for an air ticket if they did not last the whole 30 days. We have noted earlier that some of the workers were quite shy, and some homesick or given to worrying about their loved ones. This being the case, it is to be expected that where a worker was the only one in camp from a particular community, he was more prone to quit early than were a member of a group all from the same settlement.

Changes in Workers During the 30 Day Work Period. The supervisors who were interviewed were asked if they had observed anything like a typical cycle of changes in the reactions of workers during the 30 day work period -- did they typically respond differently at some stages of this period as compared with other stages of the work period? All responded that there were noticeable differences, and there was considerable consensus as to the nature of the pattern.

As they described it, the pattern which was common to many, but certainly not to all of the men, involved interest and enthusiasm for the training and the work for about the first two weeks. Thereafter a negative reaction began to set in gradually

which involved loss of interest and commitment to do the job, and a growing tendency to oversleep. The result with some was a tendency during the last few days of the period to refuse to get up in the morning, and/or to "carry a chip on their shoulder". Further, during this terminal period there was a tendency to malingering, claiming the need to see a physician, and with some the tendency to grow increasingly moody. These reactions were reported to be more characteristic of younger than of older men, but it was also reported that in the case of the younger men it was easier to "snap them out of it".

Camp Tensions. It is of course to be expected that there would be some build-up of tensions during the course of operation of a work camp situation of this kind, and indeed the material presented in the preceding section is of course descriptive of one kind of tension build-up, as their work period drags on. Generally it would appear however, that such tensions are handled internally, rather than acted out. Thus in the experience of those interviewed, which covered a period of about three years, there had been only one fight. Fraternizing with the four or five women who worked at the camp was never a source of problems. Efforts, which were apparently successful, were made to keep gambling under control so that no one suffered big losses which might lead to hard feelings.

It is particularly noteworthy that there was apparently no tendency for tensions to build up between natives and whites during the long 30 day work period. The closest approximation to this was seen in the tendency of natives, particularly from

one or two communities which had a reputation for being uncooperative, to make hostile or insulting responses to white foremen trying to get them back to work after an extended coffee or lunch break.

The supervisors did note, in those people, white and native, who opted to work longer than the 30 day shift, a progressive tendency to get tired of the job, to "get snapish", and to lose interest in life around them. It would appear from the accounts that we heard, that the most common pattern was for the men to vent their tensions in town, by going on an extended "drunk". This was characteristic of both native and white workers. It sometimes resulted in men returning to the camp at the end of their long break, half drunk. When such men's state of inebriation was such as to risk problems, they were put right back on the plane that had brought them out, and sent back to town.

One way of reducing such tensions is to permit men to go into town for short periods of time. This has been done under two circumstances. The first was when there was a plane returning to Ft. Simpson on the beginning of the weekend from the camp, half empty. At such times men sometimes asked if they could go into Simpson for a day, returning on the first plane out on Monday, and such requests were granted when space available permitted. The second was when boats came by on their way to Ft. Wrigley, 20 miles downstream. At such times the Wrigley men who wanted were permitted to return home for the weekend. Sometimes when this happened the camp superintendent would send the charter plane over to Wrigley Monday morning to pick them up and



bring them back to camp.

There was general consensus that the best way to keep tension build-up in camp under control was to have the men work long hours a day -- eleven or twelve hours of work was seen as ideal -- seven days a week. When the hours of work were reduced to nine or ten and the work week was cut back to six days, all agreed that it was more difficult to keep the crew contented.

The Ideal Duration of the Work Period. The supervisors interviewed were asked what, in their opinion, would be the ideal duration of the work period. Without exception they all advocated a 30 day work period followed by a 7 day long break at home. They felt that this resulted in optimum production -- that with a shorter work period too high a proportion of the time in camp was spent in recovering from the last long break, or anticipating the next one. On the otherhand a longer period resulted in the build-up of tensions in workers which were counter-productive. The supervisors also emphasized the point that since a 30 day work period was the minimal length encountered in northern work camps, with 42 day work periods not at all uncommon, it was important for the trainees to become used to this aspect of construction work, in order to best equip them to take advantage of a broad range of work opportunities, when their training was completed.

When asked about the ideal length of the work day, all said that it should be between 10 and 12 hours a day and most felt that 11 hours a day was in fact best. All felt that it was essential to camp morale to be working 7 days a week.

## The Workers and Trainees at the Hire North Construction Camp

As noted earlier, during the visit to the camp in August, 1976, interviews were held with all of those at the camp at that time. It was not possible to contact those who were then in the program but at home on their long breaks for interviews.

The information collected during the course of these short interviews related primarily to the background circumstances, their attitudes toward the camp situation in which they were working, and their preferences with respect to work hours and schedules in rotation employment situations.

**Backgrounds of the Workers.** The 36 people interviewed came from 13 communities in the Northwest Territories, and two came from Northern Alberta. The largest components were from Ft. Simpson (14 people) and from Ft. Wrigley (4 people).

Most of the workers were quite young. Over half were under 26 years of age, including 7 who were no more than 20 years of age. Almost 40 percent were aged 26 to 35, two were between 36 and 40 years of age and only three were over 40.

This youthfulness was reflected in the small proportion who were married. Of the 29 men, only five were married, and of the seven women, two were married. All of the married people had children except for one man. One unmarried woman also reported having children.

In terms of their positions, the largest number, 12, were equipment operators. Six were laborers, five women worked in

the kitchen, four were truck drivers, and two each were vehicle servicemen and mechanics. In addition there were one each of the following: welder, camp attendant, office clerk, camp maintenance man, and laundry worker.

Most of those interviewed had worked for several seasons in the Hire North program. The largest portion, 13 people, had worked for three seasons. Twelve had worked for one season, four for two seasons, and seven had worked for four seasons. No attempt was made to determine how long those who had worked previous seasons had stayed at work during earlier years.

**Attitudes Toward Their Rotation Employment Situation.**  
With but few exceptions all of those interviewed expressed considerable satisfaction with the work and the camp situation in which they found themselves. All reported that they liked getting out in the bush, and they expressed satisfaction with the level of physical comforts available in the camp, the food that was served, and the pastime opportunities available in the recreation room. Slightly more than half said that they did not like days off in camp however.

Those who were married were asked how their mates felt about the separation which rotation employment imposed. Four of the married men said their wives did not like it, and only one reported his wife did not mind it. Both of the married women said that their husbands did not mind the separation. In reply to the further question asking how their children felt about the separation, two men said their children did not mind it, and the other two fathers said their children did not like

the separation. The three women who had children said the children did not mind their absence while at work. These latter were also asked how satisfied they were with the arrangements that they had been able to make for care of their children while they were out at the camp. All said that they had been able to leave their children with their own mothers, and that they had no worries at all about these arrangements.

Those interviewed were invited to offer any criticisms or suggestions they would like to make which they felt would improve the work situation for themselves or their fellow workers. The largest number, eleven, criticized their current pay arrangements. They are currently paid on the 10th of the month, with the additional possibility of obtaining a modest advance on their pay cheques two weeks earlier. In addition, two men said that they needed more time for hunting than was available to them with a 30 day work period and a 7 day "long break". Two said that the camp recreation possibilities should include television (the video tape projector which was at the camp was not working at the time of the interviews, but these men may have had live television in mind as well). One complained about problems using the mobile telephone to call his home, and one said that he would rather work at home. (Four women volunteered that they preferred working in camp more than working in town, mentioning that the camp was a more peaceful situation. All of these women were from Ft. Simpson.)

Preferences with Respect to Rotation Work Schedules. The workers interviewed were asked what kind of work rotation arrange-



ments they would prefer, if they were free to "write your own ticket". They were asked to express their preferences specifically with respect to the duration of the work period, the duration of the long break, the number of hours to be worked per day, the number of days to be worked per week, and the preferred scheduling of pay cheques.

It came as a considerable surprise that a majority of those interviewed, no less than 70 percent, said they would choose a 30 day work period if they could "write their own ticket". Three said they would prefer a 14 day period, two said they would prefer 21 days, three opted for 35 days, two for 45 days and one for a 60 day work period.

Similarly with respect to the duration of the long break, the largest proportion, 47 percent, said they would prefer the seven day period that they now had. Nine said they would prefer a 10 day break and seven said they would prefer 14 days. The remainder all said they would prefer less than a week, with one each suggesting six days, five days, and two or three days.

The same kind of pattern was found with respect to the number of hours that the respondents would choose to work per week. About 40 percent preferred what had been the typical pattern prior to reduced funding -- 12 hours per day. All of the women said they preferred the 8 hours a day which they were paid for, working in the kitchen, the office, and the laundry. Eight men said they would prefer an 11 hour working day, and seven said they would prefer a 10 hour day.

All but four of those questioned said they preferred work-

ing 7 days a week. The exceptions said they would prefer to work 6 days.

Fifteen of the 36 respondents suggested that there should be changes made in wage payment arrangements. Most of them, 11 in all, said they felt they should receive a cheque every two weeks like most private employers provided. Two each said they should be paid when they left camp to go on their long break, and that they should be paid early in the month.

#### Statistical Data on Road-Building Camp Workers

Through the courtesy of the Hire North office in Ft. Simpson, arrangements were made to search the relevant records in order to obtain as complete data as possible in respect to the backgrounds and the work performances of all those who had worked at the road-building camp since its inception in 1972. Specifically we hoped to obtain background data on the age, educational attainments, home community, marital status, and number of children and work performance data on job category, the dates when they began work and terminated work, total hours worked, highest pay grade, number of pay increases received, and reasons for termination of employment, for the 1973, 1974, and 1975 employment years.

Unfortunately, the data available in the Hire North files turned out to be very incomplete. Information was available on age, marital status, and number of children for only a small minority of the 176 subjects for whom records were obtained.

Similarly, with respect to the employment records, those for 1973 were very incomplete, and the more recent records had many gaps as well. Thus for 1973, information on the job classification was available for only 2 of the 114 workers for whom some data were provided, and for the last two years it was 41 out of 132 and 78 out of 93, respectively.

The purpose in obtaining these data from the Hire North office was to attempt to identify the characteristics of the workers who demonstrated the greatest work persistence during the course of the work year, who demonstrated the greatest consistency in returning to the program year after year, and who were seen as the most successful in mastering the training or the work activities to which they were assigned, as indexed by the number of pay increases they received during the season. The result of the many gaps in the data available was that not all of these questions could be answered, particularly for the first year of the program. Moreover, for the full three years of the program some of the relationships reported must be taken with extreme caution because the relevant data are missing for a sizeable portion of the sample.

Characteristics of Workers. We shall here present the meagre information available on the background characteristics of those in the sample. This provided information only with respect to men, because the women in the camp were not in trainee positions.

In terms of the worker's home communities, there was of course a tendency for more to come from the largest communities,

but the largest proportion was not from Ft. Simpson where the Hire North office is located as might be expected. Rather it was Ft. Resolution which supplied the largest number, 30, followed by Ft. Simpson 18, Yellowknife 14, Hay River 12, Ft. Smith 10, and Ft. Providence, Inuvik, and Ft. Liard with eight each. Four each were from Rae Edzo, Ft. Wrigley, and Trout Lake, and two each were from Ft. Norman, Ft. Chipewyan, Nahanni Butte, Lac La Marte and Snowdrift.

Information on age and educational attainments is too incomplete to justify reporting.

Information on marital status and number of children was available for only 60 percent of the sample members. Of the 106 for whom it was available only four were reported to be married, and only one was reported to have children.

Experience with Hire North. In this section we shall outline briefly the data on work duration and performance that are available for the sample members for each of the four work seasons for which we have data.

For the 1972 season, data are available for 26 workers who were employed at the clearing camp since the road construction camp did not open till April, 1973. Four of these workers were hired during September, eight each during October and November, and six were hired during December. Thus more than half worked no more than two months. The total hours these men worked during 1973 are of course comparably brief. Thus one-fifth worked no more than 80 hours; one-half worked between 90 and 150 hours and the remainder worked in excess of 240 hours,



but none worked more than 440. All were paid \$3.00 to \$4.00 per hour. No data are available on number of pay increases received by these workers, or on reasons for their termination of employment.

During the 1973 employment year 114 of the 176 men in our sample worked for Hire North, but their employment classification is available for only two. Their employment dates are well spread throughout the year: 30 were hired during the first quarter, 35 during the second, 34 during the third, and 16 during the last quarter of the year. The largest portion, 52 men, worked until the end of the year. During this year 51 of the 114 worked a total of fewer than 300 hours, roughly no more than one rotation period. Only 30 worked more than 600 hours, or roughly more than two rotation periods.

The wage rates of those employed during this year ranged from \$2.00 to \$5.00. The largest proportion, 55 percent, earned between \$3.00 and \$4.00 per hour. One-third earned between \$4.00 and \$5.00, and the remaining 12 percent earned between \$2.00 and \$3.00 per hour. Almost half, 45 percent, of those employed did not receive a raise during the season. However 37 percent received one raise, 13 percent received two, and 5 percent received three pay raises during the course of that season.

Reasons for termination of employment are available for only two workers and thus are not reported.

The peak employment year, according to our data, was 1974 when a total of 132 of the 176 men in our sample were employed. Job classification information is available for only 41 of these:

21 were classed as heavy duty equipment operators, 18 were classed as student operators, and three were laborers. In this third year of the program 43 percent of those who were employed by Hire North were hired during the first quarter of the year, and 78 percent were hired during the first half of the year. Yet, a great many quit fairly early during the year: almost half (48 percent) quit at some time during the first nine months, and only 26 percent stayed on as late as December.

If we make the assumption that the normal 30 day work period involves about 300 working hours -- a realistic assumption in terms of the likelihood of time lost because of illness or inclement weather -- then our data shows that 31 percent of the 1974 employees for whom we have data worked no more than one rotation, 24 percent worked between one and two rotations, 21 percent worked between two and three, and 24 percent worked three or more. The highest number of seven rotations, worked by only two men.

During that year almost half of the men, 40 percent were in the next to the highest pay classification, earning between \$4.00 and \$5.00 per hour. The next largest group, 28 percent, were earning \$3.00 and \$4.00 per hour. Over one-third, 38 percent, received pay increases during the course of their employment, 34 receiving one increase, ten men receiving two and seven men receiving three increases during the course of the year.

Reasons for termination are known for 96 of these 132 men. The largest number, 45, simply quit. Fourteen were dismissed, nine are recorded as "job completed", and 28 were yet employed at

the end of the season.

During the 1975 season, 93 of the 176 men in our sample were employed, and job classification information is available for 78 of them. Almost three-fourths of these 49 men, were classified as operators, 16 were student operators, nine were laborers, and four were mechanics helpers. Sixty percent of these men were hired during the first three months of the year, and 92 percent were hired during the first half of the year. The data show an accentuation of the pattern seen during 1974, for the men to quit early in the season, however. Thus 43 percent quit during the first half of the year, and another 43 percent quit during the third quarter, leaving only 14 percent who worked during the last three months of the year.

Again making the assumption that a normal work period involves about 300 hours of work, we find that 23 percent of the sample members who worked in 1975 worked no more than one rotation, 22 percent worked at least one but no more than two rotations, 26 percent worked between two and three rotations, and 29 percent worked more than three rotations, including 16 percent who worked more than four rotations. One man worked seven and one man worked nine rotation periods. These data thus show that those employed in 1975 worked more rotation periods than those in any previous year.

Two-thirds of the men were earning as much as \$6.00 per hour at some time during their employment by Hire North during the 1975 season. Twenty-seven men had maximum hourly wages of between \$5.00 and \$5.99, while the remaining four men earned maxi-

mum wages under \$5.00 per hour. Fifty-six of those who worked, 60 percent of the total, received wage increases during the course of the year. For 41 men it was a single raise, but eight men received two raises, and seven received three raises.

Reasons for termination are known for 67 of the 93 employed during 1975. The largest number, 31, simply quit; eight were dismissed; 17 are recorded as "job completed"; and 11 were yet employed at the end of the season. The proportion who were dismissed was lower in 1975 than in 1974, but only slightly so: 12 percent as compared with 15 percent.

It was intrinsic to the philosophy of the Hire North program to "give people a chance" -- anyone who met the rather broad qualifications and who continued to apply if he was not hired immediately could count on being hired since the turnover among those hired was high. The result of this approach was that it was very much of a screening operation, and very many of those who passed through evidenced little interest. Thus no fewer than 30 percent of the entire sample worked only a single season, and 41 percent of these worked no more than a full work period (300 hours) in the season they worked the longest. Half of these, 20 percent of the total, quit or were fired after working no more than 150 hours, about half a rotation period. An additional 22 percent worked between one and two work rotations in the year they worked the longest. Thus only 37 percent worked more than two rotations in the year they were employed the longest, including 20 percent who worked more than three rotations and 9 percent who worked more than four rotations.



Despite the gaps in the data, if we make the assumption that where we have relevant information for 60 or more percent of those who were known to work in a particular year these are representative of the total working group, some interesting trends are seen in these data. The two most important are an increasingly higher percentage to begin work earlier in the work year, and a slow but steady increase in the number of rotations that these men worked during the employment year. The fact that during 1975, at any rate, not as many men continued to work as late in the year as the men did in 1974 is not significant because it reflects a tapering off of the program during the last quarter because of lack of funds. The implication is that had the funds been available, a number of the men would no doubt have worked more rotation periods in 1975 than they actually did.

A final interesting trend is that more men in 1975 as compared with 1974, 60 and 38 percent respectively, received pay increases during the course of the year. If we may make the assumption that the standards applied were approximately the same in both years, and the camp superintendent whose responsibility it was to make pay raise decisions was the same man throughout, then it would appear that there was an improvement in the way the men applied themselves to their training and their work.

#### Performance of Workers by Size of Home Community

It is apparent from our introduction to this section that we have only the size of the home community available as back-

TABLE 8.1

## TOTAL HOURS WORKED IN 1973 SEASON BY COMMUNITY SIZE

		Hours Worked			Total
		1-270	271 -450	Over 450	
Large Communities	N	16	10	12	38
	90	40	28	32	100
Middle Size Communities	N	21	8	21	50
	90	42	16	42	100
Small Settlements	N	6	4	10	20
	90	30	20	50	100
No Data	N	4	1	0	5
	90	80	20	0	100
Total	N	47	24	43	114
	90	41	21	38	100

ground data for cross-tabulation analysis. In terms of indicators of work performance we have only work persistence -- total hours worked during the season, for 1972 and 1973. For the last two years, 1974 and 1975 we also have incomplete data on pay rates, pay increases, and reasons for termination, and for 1975 we also have information on job classification for most of the workers. We shall present the information first on work persistence, then on pay levels, pay increases, dismissals from employment, and total years of Hire North employment.

Work Persistence. The data on hours worked by those men in our sample who worked for Hire North during the 1973 season are found in Table 8.1. These data show that those who worked no less than 450 hours during this season included 32 percent of those from the largest communities, 42 percent of those from the middle sized communities, and 50 percent of those from the small settlements.

In Table 8.2 are found the data on hours worked by those men who were employed by Hire North during the 1974 season. Once again those who worked the most hours, over 680 in the season, were least often from the largest and most acculturated communities. However, unlike the preceding year, those who had most often worked the most hours were more frequently from the middle sized than from the small settlements. The medium sized settlement workers were also over-represented among those who had worked fewer than 350 hours however, 46 percent of them falling into this category as compared with 43 percent for the small settlements and 42 percent for the large settlements. Generally,

TABLE 8.2

TOTAL HOURS WORKED IN 1974 SEASON BY COMMUNITY SIZE

		Hours Worked			Total
		Under 350	350 -680	Over 680	
Communities	N	10	4	10	24
	90	42	16	42	100
Size Communities	N	24	4	24	52
	90	46	8	46	100
Settlements	N	6	3	5	14
	90	43	21	36	100
	N	13	15	14	42
	90	31	36	33	100
	N	53	26	33	132
	90	40	20	40	100



TABLE 8.3

## TOTAL HOURS WORKED IN 1975 SEASON BY COMMUNITY SIZE

		Hours Worked			Total
		Under 500	501 -750	Over 750	
Large Communities	N	7	2	6	15
	90	47	13	40	100
Middle Size Communities	N	17	7	8	32
	90	53	22	25	100
Small Settlements	N	4	2	8	14
	90	28	14	58	100
No Data	N	10	7	15	32
	90	31	22	47	100
Total	N	38	18	37	93
	90	41	19	40	100

however, the differences between workers in total hours worked by size of settlement, found in this table, are rather small. This suggests that in this second year of the program, fewer of the least persistent workers were being rehired, and/or those who were being hired knew better what to expect, and were better able to "stick it out", irrespective of community.

As the data in Table 8.3 shows, during the 1975 work season it was the workers from the middle sized communities who were the least persistent, with only 25 percent falling into the longest working category, over 750 hours, as compared with 40 percent from the large communities, and 58 percent for the small settlements.

Unfortunately large proportions of men for whom no data on home community was available, about one-third for the 1974 and 1975 employed samples, mean that no firm conclusions can be drawn from the data we have reviewed. However it appears, within the limitations of our data, that the workers from the small settlements have generally worked more persistently than have those from the middle and large sized communities.

**Pay Levels.** Data on pay levels are available only for the 1974 and 1975 worker samples. The data in Table 8.4 show that in 1974, the level of pay received by those in our sample varied directly with the size of the home communities. Those from the largest communities were over-represented in the highest pay category, and those from the smallest settlements were over-represented in the lowest pay categories. According to our 1975 data, the same was still true for workers from the smallest settle-

TABLE 8.4

## PAY SCALES FOR 1974 AND 1975 SEASONS BY COMMUNITY SIZE

		1974 Pay Scale			Total
		Under \$4.00	\$4.00 -\$5.00	\$5.00 -\$6.00	
Large Communities	N	0	18	2	20
	90	0	90	10	100
Middle Size Communities	N	20	25	0	45
	90	44	56	0	100
Small Settlements	N	6	8	0	14
	90	43	57	0	100
No Data	N	16	21	0	37
	90	43	57	0	100
Total	N	42	72	2	116
	90	36	62	2	100

  

		1975 Pay Scale			Total
Large Communities	N	0	7	8	15
	90	0	47	53	100
Middle Size Communities	N	2	2	28	32
	90	6	6	58	100
Small Settlements	N	2	6	6	14
	90	14	43	43	100
No Data	N	8	9	15	32
	90	25	28	47	100
Total	N	12	24	57	93
	90	13	26	61	100

ments. However in this year it was those workers from the middle size settlements which were most frequently in the highest pay category, 88 percent, as compared with 53 percent of those from the largest settlements. Again we must be cautious in accepting this because we do not know the home communities of about one-third of the workers for these two years. However it seems plausible that the small community members would be over-represented in the lower pay ranks, because they would probably tend to have less background and less confidence in approaching the training they were receiving.

Pay Increases. Data on number of pay increases received during the season for the 1974 and 1975 work seasons by size of community, are found in Table 8.5. Little can be confidently said because of small frequencies and the substantial proportions of workers whose home communities are not known. However the data suggest that those from the smallest settlements more frequently obtained raises than those from the larger communities. We have seen above that they were over-represented among those receiving lower wages, thus this finding is plausible. We have also seen from the supervisor's comments that these workers are typically seen as more cooperative and less difficult to work with than those from larger communities.

Dismissals from Employment. Our data on dismissals from employment are somewhat surprising; workers who were dismissed in 1974 comprised 11 percent of those from large communities, 14 percent of those from middle size communities, and 30 percent of those from small settlements. For the 1975 season, by contrast,



TABLE 8.5

PAY INCREASES RECEIVED DURING 1974 AND 1975 SEASONS  
BY COMMUNITY SIZE

		1974 Pay Increases			
		None	One	Two	Total
Large Communities	N	9	3	1	13
	90	69	23	8	100
Middle Size Communities	N	14	2	2	18
	90	78	11	11	100
Small Settlements	N	2	0	2	4
	90	50	0	50	100
No Data	N	9	5	2	16
	90	56	31	13	100
Total	N	34	10	7	51
	90	67	19	14	100
		1975 Pay Increases			
Large Communities	N	5	1	1	8
	90	75	12.5	12.5	100
Middle Size Communities	N	16	1	1	18
	90	89	5.5	5.5	100
Small Settlements	N	6	0	2	8
	90	75	0	25	100
No Data	N	13	6	3	22
	90	59	27	14	100
Total	N	41	8	7	56
	90	74	14	12	100

this pattern was exactly reversed with rates of 18 percent for large communities, 13 percent for middle size communities, and 0 percent for the seven workers from small communities. This shows well the instability of data based on small numbers of cases. However one might yet wonder why the rate should have been so high among those from the small settlements in 1974, with three out of ten dismissed. The answer to this question is suggested by the observation of the supervisors, cited earlier, that men who were unhappy or homesick were often afraid to go to the office and quit, because they did not want to face a supervisor's trying to talk them into staying on. In this situation they would commonly resort to getting themselves "fired". It is of course the men from the smaller and more isolated settlements who were more shy, and thus who might have recourse to getting themselves dismissed when they wanted to quit.

Total Number of Years of Employment. In Table 8.6 is found data on the total number of years of employment with Hire North were experienced by the members of the sample, tabulated by community size. The data show that the men from the largest communities were least likely to come back year after year; they averaged 1.89 seasons per man. There was very little difference between the other two categories. The mean for men from middle size communities was 2.32, and that for men from small settlements was 2.27. It seems likely that the men from the largest communities had less need for prolonged training because they probably had already some relevant skills. They also probably had alternative employment available to them, particularly as the

TABLE 8.6  
TOTAL NUMBER OF YEARS EMPLOYMENT WITH HIRE NORTH  
BY COMMUNITY SIZE

		Years Employed by Hire North				Total
		One	Two	Three	Four	
Large Communities	N	20	13	7	4	44
	90	45	30	15	10	100
Middle Size Communities	N	15	19	23	6	63
	90	24	30	36	10	100
Small Settlements	N	4	10	6	2	22
	90	18	46	27	9	100
No Data	N	13	31	0	2	46
	90	28	68	0	4	100
Total	N	52	73	36	14	175
	90	30	42	20	8	100

exploration boom deepened, while the men from the middle and small sized settlements had fewer alternatives available and so depended more heavily on the Hire North opportunities.

Another indication of the importance of the Hire North Program to workers from the smallest communities as reflected in their persistence in the program is seen in the total number of hours worked by the sample members in the last year of their employment by Hire North. Data on this index are of course available for all 176 members of our sample. These data show that over 500 hours were worked in their last year of employment by 27 percent of those from the large communities, 31 percent of those from the middle size communities, and no less than 64 percent of those from the smallest communities.

Summary. The data presented in this section show quite clearly that for our sample members, and within the limits of the data, those employed from the small settlements were typically the most persistent in returning to the job. The highest pay levels were received by those from the largest communities, and the lowest were received by those from the smallest, but our data show that the latter received the largest number of pay raises in each of the two years for which we have these data. Our data on dismissals from employment are contradictory, with those from the smallest settlements having the highest proportion of dismissals in 1974, and the lowest proportion in 1975. It seems probable, from information supplied by supervisors who were interviewed, that the dismissals of the men from the small communities is probably more a reflection on their difficulties



in adapting to the camp situation, which led to their getting themselves fired as a way of avoiding the ordeal of quitting, than of an unsatisfactory work performance. The workers from the small communities were also more consistent in returning to the training program a second and a third year than were those from the larger communities. It is quite possible that the former had more to learn about operating heavy duty equipment than did the latter, however.

#### Later Employment of Hire North Trainees

In the fall of 1976 a survey was made of the present employment status of all Hire North heavy duty equipment operator trainees who had completed their training or who had dropped out of training, as of August 31, 1976. These data provide us with several different indicators of reactions to this "thirty and seven" day rotation in the context of a training program, operating under actual construction camp conditions. These indications are, the proportions who completed the program or who dropped out, who made use of their heavy duty equipment operator training at some time, who were yet currently making use of their training at the time that the survey was made in 1976 and who had continuing wage employment of some kind.

Because the survey was made and completed on very short notice, it depended heavily on information received over the telephone from the home communities of these former Hire North trainees. The result was that in some cases the information

TABLE 8.7

## PRESENT EMPLOYMENT STATUS OF MEN WHO HAVE LEFT HIRE NORTH H/E OPERATOR

## TRAINING BY COMMUNITY SIZE

Finished Operator Training	Small Communities		Medium Size Communities		Large Communities		No Fixed Address		Total Communities	
	N	90	N	90	N	90	N	90	N	90
Now working as operator	6	40	20	35	7	33	6	30	39	32
Worked as operator, now semi-skill employment	0	0	2	4	0	0	0	0	2	2
Worked as operator, now unemployed	0	0	7	12	0	0	0	0	7	6
Worked as operator, now status unknown	0	0	0	0	5	24	1	5	5	5
Now a laborer	0	0	2	4	0	0	0	0	2	2
Now trapping	1	4	0	0	0	0	0	0	1	1
Now unemployed	0	0	2	4	0	0	0	0	2	2
Status unknown	0	0	3	5	3	14	3	15	9	7
Total Finished Operator Training	9	30	36	63	15	71	10	50	68	56

TABLE 8.7 (CONTINUED)

Did Not Finish Operator Training	Small Communities		Middle Size Communities		Large Communities		No Fixed Address		Total Communities	
	N	90	N	90	N	90	N	90	N	90
Now working as operator	7	31	3	5	2	10	3	15	15	12
Worked as operator, now unemployed	0	0	1	2	0	0	0	0	1	1
Has semi-skilled employment	1	4	4	7	0	0	0	0	5	4
Now trapping	1	4	0	0	0	0	0	0	1	1
Now unemployed	6	27	13	23	0	0	0	0	19	16
Status unknown	1	4	0	0	4	19	7	35	12	10
Total Did Not Finish Training	16	70	21	37	6	29	10	50	53	44
Total Terminated Training	23	100	57	100	21	100	20	100	121	100

obtained over the telephone was more complete than in others. Predictably it was the smaller communities which were able to supply the more complete information. The total number of former trainees for whom information was obtained was 121. These data, by type of community, are found in Table 8.7. We shall first make some observations about the total sample, and then about the community sub-samples.

The Total Sample. The most significant general findings are that well over one-half (56 percent) of those men who entered the heavy duty equipment training program completed their training, and that about the same proportion of all the trainees are known to have subsequently, at some time work as heavy duty operators. Those who completed the training of course more frequently had had this employment than those who had dropped out, the proportions being 79 and 30 percent, respectively. At the time that the survey was made 54 men and 44 percent of the total, were working as heavy duty equipment operators. If we omit those whose current status was unknown when the survey was made, the proportion who were known to have had some H/E operator employment rises to 70 percent, and the proportion thus employed when the survey was made is 54 percent. The latter figure includes 66 percent of those who had completed their training, and 36 percent of those who had dropped out, if those whose status was unknown are omitted from the "finished training" and "did not finish" sub-totals. It is noteworthy that those who had completed their training were far less likely to be unemployed, when the survey was made, than were those who completed the training,



the proportion being 13 and 38 percent respectively. Lest these figures be misinterpreted, they probably reflect not only the differential opportunities available to men who have H/E operators certificates as compared with those who do not, but also the work adjustment, work motivation, and ability to adapt to employment separation from the home community. We suspect that among those who dropped out, these latter characteristics would be generally less prevalent than among those who completed the training.

The Community Sub-Samples. The most striking contrast found in the table is between the proportions of trainees from the larger and middle sized communities which finished their training, 71 and 63 percent respectively, and those from the small communities which finished, only 30 percent. Similarly, somewhat larger proportions of terminees from the two larger classes of communities are known to have worked at some time as H/E operators, than from the small communities. Indeed the differential would probably be much larger if complete data were available since no information at all was available for one-third of those from the large communities, and for 5 percent of those from the middle size communities, while the same was true for only one man, 4 percent, of those from the small communities. On the other hand while 30 percent of those from small communities and 33 percent of those from the middle sized communities, were trapping or unemployed at the time the survey was made, the same was true of none of those from the larger communities. It is probable that some proportion of those whose status was unknown

were unemployed, however.

There are interesting differences between these classes of communities in the proportions of those who had completed their training who were employed as H/E operators when the survey was made. These comprised 86 percent of those from the small communities, 61 percent of those whose status was known from the middle size communities, and 100 percent of those whose status was known from the large communities. The latter is certainly an exaggeration since undoubtedly a number and perhaps most of the eight men whose current status was not known were not so employed. Nevertheless the indications are clear that almost all of the men from the small communities who do finish their training go on to use the skill they have acquired, to a greater extent than those from the middle size communities and perhaps than those from the large communities. Thus it would appear that those who are able to cope with the adaptation and transition difficulties from small settlement experience to the Hire North camp thereby acquire the ability, and/or prove their dedication to such work after their training is completed. However, they may have better opportunities to obtain such employment in their home communities as well, as compared with those from larger communities. Our data suggest that it is the men from the middle sized communities who have the greatest difficulty making the transition from training to work as H/E operators since only about 60 percent of those who completed their training were so employed when the survey was completed, although half of the remainder had earlier had such employment. We suspect that

more of the men from these communities have obtained H/E training than can be so employed in their home communities. It appears that a number of the surplus operators have tried working in a construction camp and decided after a time that they did not like the separation from home, and so eventually quit. Some found other kinds of employment in their home community (four men) while others became unemployed (nine men).

While our data for the men from the large communities are quite incomplete, they suggest that many were known to have found H/E employment in their home communities or elsewhere. The remainder must in most cases have left the community, since it is unlikely that their status would be "unknown" if they were yet there, but whether they found H/E employment elsewhere or some other type, is not known. In any case these data suggest the probability that these latter, more sophisticated as a result of having lived in the larger centres, are relatively well able to leave their home communities.

Summary. In summary it seems clear from these data that this "thirty and seven day" rotation scheme, in the context of the Hire North training program, as reflected on the basis of a follow-up survey of those who have left the program, is relatively successful. This is seen in the facts that well over half of those who have enrolled in the operator training have completed it, that most of them have subsequently had some employment as H/E operators, and that over half (52 percent) of those for whom information was available were so employed at the time that the survey was made.

It seems quite clear from these survey data that the rates for completion of training are significantly higher in the two larger than in the smallest sized communities. We interpret this as suggesting that the process of adaptation to the 30 day work rotation period, and to the conditions of camp life is more difficult for those from the smaller, than from the larger communities. However it is also clear that those of the trainees from the small communities who do manage to "stick-out" the completion of their training, are more likely to obtain employment utilizing this training than those from the middle sized and perhaps from the large communities. We suspect that this may reflect the greater availability of such employment in the home communities to those from the small settlements. The data also suggest that those from the largest communities are better able to leave their homes in search of employment, or other desired experiences, than those from the middle sized communities.

#### Summary

Unfortunately the variety of data available to us on the Hire North program are probably the least satisfactory of any in the five types of work rotation situations considered in this study. Four sources of data were available, from interviews with the supervisors, from very brief interviews with those workers in the training camp during the first week of August, 1976, from the statistical data on 176 male workers at the construction camp supplied by the Hire North office, and from the



results of the follow-up study of those who have terminated training as heavy duty equipment operators. Of these the first was the most satisfactory -- cooperation and rapport were good, and the information they supplied has in some cases been substantiated by other data received from other sources. The data obtained in interviews with the Hire North workers appears to be good -- in that cooperation was good, and answers were received to all questions asked. However a number of those interviewed, particularly the women, were shy, and there must be concern about the extent to which some gave the answers that they thought the interviewer wanted to hear. The statistical data supplied by the Hire North office, and the follow-up study made by that office both suffer from a great deal of incompleteness in the data, which makes specific conclusions based on these data questionable.

The data present a seemingly contradictory pattern. On the one hand most of the Hire North workers interviewed said that they did not mind the 30 day work period, and indeed 70 percent said that this is the length of work period that they would themselves choose, if they were "free to write their own ticket". On the other hand, the statistical data show a record of very poor work persistence on the part of those included in the survey of 176 workers for whom data are available. Thus it is noteworthy that of this whole sample almost 40 percent did not work more than a single rotation in the last year of their employment.

The answer to this paradox appears to lie in the ambivalence, of the almost exclusively Indian workers who comprise this

sample, toward wage work at least in a camp context. It clearly involves a change in life style, isolation from the life of their home communities, and separation from loved ones, as well as subordination to whites who are both demanding and discourteous if not boorish (by Indian standards), at least part of the time. It is only to be expected that in this situation, a variety of tensions would build up, and that as a result, men would quit, get themselves fired and decide not to return for a second or a third rotation. This pattern is of course further strengthened by the fact that those from the largest communities who were probably most acculturated, had the most alternative opportunities. They quit or did not return from a long break when they decided to take another opportunity which they decided was more attractive than work at the camp. Those from the smaller communities, lacking these other opportunities, were less acculturated, and so more likely to find the work activity, the demands of the whites, and perhaps some aspects of camp life, quite stressful.

On the other hand it is apparent that in some respects the mode of life available at the camp was quite attractive, at least to those who were in camp in August, 1976 when they were interviewed. They clearly liked being out in the bush, in a comfortable camp situation where there was good food in unlimited amounts and a variety of recreational pastimes freely available. There were also indications that at least some, particularly the women appreciated the peacefulness of the camp as contrasted with the more raucous quality of life in a community like Ft. Simpson.

Thus we must conclude, on the basis of the admittedly

unsatisfactory data available that the higher turnover rates which are undeniably reflected in our data, are a reflection more of difficulties in coping with the pattern of camp life generally, than of dissatisfaction with the long 30 day work period. To over-simplify, it would appear that some were able to make the transition to camp life, and some were not, but even the latter had continuing ambivalence to camp life, unable to identify strongly with it, perhaps. In this situation, at least in the case of those interviewed, while they were in the camp they were able to enjoy various satisfactions that it had to offer, and typically did not chafe under the experience, until the final week of their work period.

There are some apparent contradictions between the statistical data supplied by the Hire North Program office, and the results of the survey of the present employment status of the men who have left the heavy duty equipment operator training program conducted by that office. These contradictions are in part explained by the facts that the statistical data included information on laborers and servicemen and mechanic trainees, as well as H/E operator trainees, and on those who were yet in the training programs, while the survey included information only on men in the H/E operator program who have now left it. Furthermore, the statistical data were definitely quite incomplete, and the survey data may have contained omissions as well.

These two sets of data suggest that although the men from the larger communities were less consistent and less persistent in their response to the Hire North training generally than those



from smaller communities, they did more often complete their training than those from the smaller communities. This somewhat complex pattern is probably explained in terms of the greater initial sophistication and relevant experience of those from the larger communities, and their more numerous alternative earning opportunities, as compared with those from the smaller communities, as well as by the incompleteness in the data. Thus it would probably take the latter longer to get as far as they did get, and they might well be more satisfied with attaining the ability to operate a variety of equipment, without actually qualifying for an Operators Certificate, as compared with the men from the larger communities. There is some evidence suggesting that the adaptation to the 30 day work period, and to camp life was more difficult for those from the smaller settlements, but that having made it, and particularly having earned their Operator's Certificate, they were better able to profit from the opportunities which became available to them.

On the basis of all these data, then, we must conclude that those in the Hire North program generally appeared to find the 30 day work period satisfactory. But the tendencies toward increasing disinterest and even lassitude in many of the workers, which was reported by the supervisors, during the final week of the work period suggest that 30 days is probably too long. The lack of any data on the reactions of mates, children or other family members to the 30 day separation period must make us even more cautious in judging this rotation schedule as acceptable.



## CHAPTER IX

### The 42 Days at Work and 14 Days at Home Rotation Schedule of Strathcona Mineral Services

#### Background.

The Strathcona Sound mine site is located on Strathcona Sound, about 5 airline miles from the small settlement of Arctic Bay. It has been for many years known that there were commercially exploitable mineral deposits here. The mining claims in the area have long been the property of the Texas Gulf Corp., and there has been a certain amount of development activity at the site of the ore body annually for about the last 20 years. Among our sample of workers interviewed at Arctic Bay, three men reported that they first worked at the mine site in the spring of 1958, and many of the men had worked there to some considerable extent prior to 1970. Construction of the mining facility complex - roads, docks, mine, ore processing facilities, housing and accommodations - was begun in May, 1974, with Strathcona Mineral Services as the general contractor. All of the Inuit workers at the mine site at the time that our data were collected were the employees of Strathcona Mineral Services (hereafter SMS).

An inspection trip was made to the mine site at Strathcona Sound in early September, 1975. In the course of this trip interviews were conducted with the Superintendent of the Project, the Office Manager, and five

foremen who supervised the work of some Inuit workmen. A side trip was also made to Arctic Bay to interview the resident employment counselor of the Government of the N. W. T. and two knowledgeable and long term residents of the community. I was able also to discuss with several members of the Settlement Council the prospects for obtaining permission from the Settlement Council to interview men who had been employees of Strathcona Mineral Services and their wives and children, concerning their reactions to this kind of employment opportunity. This permission was eventually forthcoming.

A trip into Igloolik at the same time would have been highly desirable to accomplish the same purposes, but transportation would not have been available for several days, and time constraints thus made the trip impossible. Accordingly contact was made with the Igloolik settlement council by mail, with the result that permission to interview Igloolik employees of SMS, together with members of their families, was eventually obtained.

Employment conditions. Inuit workers have been employed at Strathcona Sound since the very beginning of the mine construction phase in 1974, in proportions ranging from 20 to 70 per cent of the total work force. An important consideration from the outset has been the length of the work period at the site before men return home

for a long break. Company policy from the outset has been that this period should be no less than 3 months duration, for everybody. However it has recognized that such a long work period is quite unprecedented for the Inuit, and might work a hardship for some of them so that in fact its policy during most of the construction period has been flexible: it has emphasized the three month work period as a standard, and has encouraged the Inuit workers to work for as long a period as they possibly could, but at the same time it has permitted them an earlier return to their home community when they have really wanted to.

The feeling among the Inuit was that a 3 month work period was certainly too long. The result of this somewhat unsatisfactory ambiguity, and the stresses that the Inuit felt resulting from the conflicting expectations and needs of their families and home communities, and of the company, was a series of negotiations between the Government sponsored Training Employment Advisory Council, representing the interests of the Inuit workers, and the Strathcona Mineral Services Company. The Inuit workers themselves, recognizing the Company's argument that efficiency in construction required low turnover and worker stability for at least intermediate periods, suggested a work period of six weeks. This was eventually agreed to and became official policy in July, 1975. The company position continued to be that a longer work interval was more desirable, and to encourage Inuit workers

to stay on a slong after the six week period was over for as long as they could "stick it out", but the workers right for immediate return to his home community after completion of his six week work period is firmly established.

All workers at the site work a 10 hour day, and work a six day week. Work on Sunday is optional, but the company encourages it and most white workers do work a seven day week. Most of the Inuit have only worked the six day week, apparently, because it is against the religious scruples of most of them to work on Sunday.

During the fall of 1975 there were about 45 Inuit workers employed at the mine site at a time. About 20 of these usually came from Arctic Bay; about 20 from Igloolik or Hall Beach, and the remainder, to a total of six or eight, came from Pond Inlet, Clyde River, Pangnirtung, or Frobisher Bay.

There are several points of considerable importance to this study in the work alternatives and home-accessability options of the workers from these different communities. Perhaps the most important is that, in view of the proximity of the mine site to the Arctic Bay settlement, and since the men from this settlement, together with most of the other Inuit workers, did not work on Sunday anyway, throughout most of 1975 the SMS company provided free "air bussing" service to Arctic Bay to any Inuit workers who wanted to take advantage of the opportunity, flying them from the mine site to the settlement after work about 6 or 7 pm Saturday night,



and bringing them back to work about 6 or 7 AM Monday morning. It should be emphasized that this ferry service to and from Arctic Bay was available to all Inuit workers, whether or not they were residents of Arctic Bay. This did not pose problems in the Arctic Bay settlement, since many of the non-residents did have relatives there, but it was of very considerable importance to the Arctic Bay workers and their families in largely eliminating the isolation and the loneliness that a six week work period in rotation employment would normally have imposed.

The Arctic Bay men effectively had two alternative continuing work opportunities, with Pan Arctic Oil for a 20 day work period at a higher rate of pay or with SMS for a 42 day work period, but with Sundays spent<sup>1</sup> at home, and at a lower rate of pay. It was the opinion of white observers in the community that the Pan Arctic employees were normally the younger, unmarried men, and the SMS employees were normally the older, married men. We shall see that some of those we interviewed said they preferred the one, and some the other of these options.

The Pond Inlet men also had the same alternative work opportunities with one crucial difference: they had no opportunity at all to return to their homes and families every Saturday evening for a day at home, as the Arctic Bay men. The result was that whereas SMS employment meant more frequent contact with home for the Arctic Bay men, it meant

much less frequent contact for the Pond Inlet men, as compared with Pan Arctic employment. SMS would of course like to recruit a maximum number of workers out of Pond Inlet (as well as out of Arctic Bay) because of its proximity to the mine site - only 140 miles - and the economies in transportation of workers that would result. However it was made very clear to SMS officials, visiting Pond Inlet in the Spring of 1976 to promote the recruitment of workers, that Pan Arctic employment was very much more attractive to the Pond Inlet people, the workers and their families, because it entailed absences from home which were only half as long as the six week absences necessitated by work at Strathcona Sound.

The situation of Igloolik men is different again: effectively they have only one continuing employment opportunity at attractive wages, the 42 day work period employment which SMS offers. Jobs in the community can employ only a small proportion of the male work force, and there are no other large scale employers currently in the area. When employed at Strathcona Sound they of course do not have the opportunity to return home on weekends which the Arctic Bay men have. But they do not have any alternative, much less more attractive alternative employment, as do the Pond Inlet people.

The situation of the handful of SMS workers who have come from Clyde Inlet, and Pangnirtung is similar to that of

of the Igloodlik workers, except that, since these settlements are much more distant from Strathcona Sound, and since very few workers have come from these settlements (a total of three from the former and four from the latter as of September, 1974) there is no community image of many and attractive wage employment opportunities at Strathcona Sound. Frobisher Bay, which had supplied a total of six workers as of September, 1975, was quite different again. While many jobs are available in the community in Frobisher Bay, the demand probably exceeds the supply. The weekly income to be earned at Strathcona Sound is probably substantially higher than the weekly income for comparable work in Frobisher Bay, but the isolation costs incurred at Strathcona Sound are clearly quite heavy.

The Work Activity. SMS is unusual in the very heavy emphasis which it places on facilitating and expediting the skill and income upgrading of the native workers it employs, quite similar to the Rabbit Lake mine in this way. There can be no doubt of its commitment to this goal or of the effort it makes in moving native workers from one work activity to another until the activity is found which seems to be most attractive to the individual worker. All beginning native employees are started at the same wage rate, irrespective of what experience or qualifications they say they have, because the nature of Arctic work and training oppor-



tunities has been such that it is impossible to be sure what levels of skill or proficiency men may actually have achieved. However the worker is placed in a work situation where he has an opportunity to do what he says he can do, and is observed carefully by his foreman, so that he is soon placed at the wage level which is warranted by his skill level. Men without previously learned skills are moved around until they find a trade in which they show interest and aptitude. Thereafter, if their advancement requires special training, or attendance at a trade school, they are given the necessary opportunity. In this way they too are pushed along in terms of advancement as rapidly as their motivation and their performance on the job justifies.

It should be noted that the opportunities at Strathcona Sound are quite different from the opportunities provided by the Oil Companies in oil exploration employment. Although the latter too would like to upgrade their native workers, so that they would gladly train and employ all native drilling rig crews, for example, if they could, There are two important differences. The first is that employment on a drilling rig is seasonal employment; there are no immediate prospects for permanent employment, and thus the incentive to work to achieve the next skill level must be impaired, since reaching that level has few long term implications. The second, at least equally important, is that the first level above the unskilled "roustabout" level is that of "roughneck". Roughnecking is



hard, dirty and somewhat dangerous work on the "rig floor" which is minimally protected from the elements, and coffee and lunch breaks are "snatched" on the job without opportunity to go into the warm mess-hall to relax. For all of these, and perhaps other reasons, roughnecking has been distinctly unattractive to all but a very few Inuit, and thus there has been very little mobility of native workers up the advancement ladder which exploration activity does provide.

We should note, in passing, that the emphasis which SMS places on occupational upgrading of its native employees is not evidence of disinterested generosity. Most of the work skills which the Inuit workers are acquiring will be in demand around the mine after it is in operation. It would be advantageous to have a mine workforce composed of as high a proportion of locally resident native workers as possible, and the upgrading efforts that SMS is making with respect to native workers are all steps toward that economically as well as politically relevant goal.

Work Performance of the Inuit Workers. Considerable time was spent in the course of interviews with the Superintendent, Office Manager, and with the foremen, in attempting to get an impression of the quality of work performance of the Inuit workers. All, without exception, agreed that their work performance was very good. One man, the foreman who

supervised what was virtually an all Inuit construction crew, and who has worked with native work crews all over the world, said that in all of his experience he has never worked with men who acquire manual skills faster than the Inuit workers do. Others gave less widely experienced support to this judgement. All emphasized that there was not a double standard for the evaluation of work achievement at Strathcona Sound with the Inuit workers evaluated according to less demanding criteria than white workers.

We suspect that a fair amount of the credit for the noteworthy work performances which the Inuit have turned in must be given to the management and the foremen who, to our mind, have handled the Inuit workers with considerable sensitivity and skill. The construction foreman quoted above said that he makes it a practice to rotate men rapidly through a variety of work experiences in order to find the job that each man fits best, thus insuring that the men do not dislike the work they are doing. Similarly, the company policy with respect to "compassionate leaves", early termination of a work period, and the timing of the return to work of a man after his "long break" at home has been very flexible. No man has ever been fired or even suspended according to the Superintendent, for difficulties or shortcomings in these areas. Rather the company policy has been to keep re-iterating company expectations, and to tell a man that they will "go along with" him at this time but that they expect him to

conform more closely to company policy in the future. One consequence of this approach, the Superintendent believes, is that the Inuit workers have now learned what the company policy is, and what the reasons for it are and since they have not had reason to become hostile toward it, are now beginning to put pressure on offending workers from their own community to conform more closely. This is apparently particularly evident among Arctic Bay workers. Lateness and absenteeism problems have been most apparent among these men since they are able to return to their homes every Saturday evening.

Thus it is apparent that the keynote of company policy has been flexibility, in respect to the scheduling of a shorter work period for Inuit than for white workers, in respect to enforcement of conformity with work period deadlines, and in respect to the occupational placement and upgrading of the Inuit workers. The consequence of this has been a very high level of work performance on the part of the Inuit workers and generally pleasant and conflict free relationships between the company representatives and foremen, and the native workers and their home communities.

The Work Rotation Period - Foremen's Observations and Suggestions. During the course of interviews those who had opportunities to observe or to supervise the Inuit workers were asked to comment, on the basis of their observations, on how the Inuit responded to the six week work period, and

to suggest what they felt would be an ideal work period for the native workers. All agreed that the Inuit responded to the stresses of the work period pretty much as the whites did, that toward the end of the period the work performance falls off, tensions built up and men often got a bit "touchy" or irritable, but there was never overt conflict. They felt that a difference between the whites and the natives was that the former were more committed to earning money, while the latter were more committed to their families.

To the question dealing with what they felt would be the ideal length of the work period for the Inuit workers, most of those interviewed said they thought six weeks was about right. Most of them emphasized that they felt that on construction work a shorter work period was unworkable. They felt that it could not, and need not be shorter, but it should not be shorter, either. One foreman felt that six weeks was too long, working unnecessary hardships on the Inuit and suggested that the work period should last for four weeks only. The men who were particularly committed to the occupational upgrading of the native workers mentioned that while the Inuit did learn very rapidly, there was some loss of skill and motivation during the two weeks and more "long break" when the workers were at home.

In the remainder of this chapter we present separate analyses of the interview and the performance and rating indicator data for those men working for SMS who came from



Arctic Bay and Igloolik. We do this for several reasons. The most important is that, as we noted earlier the Arctic Bay men were able to return home to their families for a day every Saturday night, while the Igloolik men were not able to. In addition there are studies in the literature which suggest that the sense of relative isolation from the home community has an effect on the amount of stress that men feel when isolated from home. The Strathcona Sound mine site is a mere 25 miles from Arctic Bay, but it is 260 miles from Igloolik. Subjectively, the distance is even further: the Arctic Bay men know that they can get home in an hour or so, "in a pinch", by their own efforts if they want to: there is a certain amount of skidoo traffic between the two communities in winter. The Igloolik men are in a very much different situation, since they are entirely dependent upon company provided transportation when they want to go home. Yet another reason is that we have more complete interview data for Arctic Bay than we do for Igloolik.

Attitudes of the Workers from Arctic Bay Toward the 42 Day Work Rotation Schedule. As of the end of November, 1975, 33 men from Arctic Bay had worked for varying lengths of time for Strathcona Mineral Services. As many as possible of these workers and their families were contacted by two Inuit interviewers who were residents of Arctic Bay during the following three months. As a consequence of these efforts,

interviews were actually held with 23 workers, with 19 wives, and with 19 children. We are not able to report on the number of wives who should have been interviewed, since we do not know how many of the 10 workers who were not interviewed were in fact married. Similarly we do not know how many workers' families with children between the ages of 8 and 16 years are not represented in our sample, because we do not know how many of the workers had children in that age range.

No information is available on why returns were not obtained from the 10 workers for whom no interview schedules were received. We suspect that the main reason was that these men had begun working for Pan Arctic Oil by the time that the interviewing was under way, and that for some reason the interviewer failed, or was unable to contact them. The same may have been true of some of those working for Strathcona Mineral Services (hereafter referred to as SMS). We have some evidence as well that the interviewers wearied of their work toward the end of the interview period, and so failed adequately to exploit opportunities to interview people on the list of interview subjects when opportunities came their way. It should be added that during virtually the entire period that the interviewing was in process, there were no telephone connections into Arctic Bay. As a result it was impossible to try to obtain the weekly reports from interviewers, and to provide the encouragement that would have provided a maximum rate of return.

In the pages which follow we shall present the results of the attitude survey conducted in Arctic Bay among the workers and their families. As earlier we shall present the data that we have for the workers first, followed by that for their wives and their children.

**Workers' Characteristics.** We do not have data on the characteristics of the total population of Arctic Bay men who ever worked for SMS, against which to assess the representativeness of those actually interviewed.

The Arctic Bay employees of SMS who were interviewed were rather similar, generally, to the Arctic Bay and Pond Inlet men who worked for Pan Arctic. As a group they were rather young, with a median age of 31. Only three were more than 25 years of age, and the same number were over 40 years of age. Nineteen were married, three were single, and one was widowed. All but one of the married men had children. The median number was four; seven men had no more than one or two, while five men had five or six children. Seven had no children over the age of five, and so no children's interviews could be obtained for them.

Almost half of the men (48 per cent) had had no schooling at all, and eight of the remainder had had no more than two years. Only four men had had four or more years of schooling, the largest number being eight years. Only two had had residential schooling experience. Fourteen of the men, well

over half, had had some type of special job training. The largest number, six had had heavy duty equipment operation training, followed by mechanic training (3), construction trade training (3), housing maintenance (1) and other training (1).

All but four had had full time trapping experience. Only two had had less than nine years of experience, and ten men had had more than 15 years of experience. Six had trapped full time within the last two years, but nine of the 19 had stopped trapping full time between six and 12 years ago.

All but one had had some previous wage employment experience. Responses to the question "Who did you work for longest, before you began working at Strathcona Sound?" showed that the most frequent long-term employers were the Territorial Government (9 men) private employers (exclusive of oil companies, 7 men) and oil companies (2 men). The median number of months worked during the previous five years was about 36; one quarter of the men had worked no more than 12 months, but one third had worked for at least four of the five years.

The largest proportion, 10 of the 23 men in the sample, first worked at Strathcona Sound prior to 1970. Only six men began working there as recently as January, 1975. The significance of this, of course, is that three fourths of the men have a personal backlog of experience working at the mine site. More generally the Arctic Bay settlement has a



long history of familiarity with the work setting, and to some extent, the kinds of work which are available there.

**Workers' Attitudes.** The interview data show that most of these Arctic Bay Inuit workers had a favorable reaction to their rotation work experiences with SMS. All but two of the respondents to this item said they believed the employment program was a good thing for their home settlements, the remaining two men saying they did not think so. Most of those replying affirmatively (58 per cent) said that it gave men an opportunity to work close to home; 15 per cent mentioned the income earned, and 19 per cent mentioned the opportunities for employment which it provided. The men who responded negatively, said separation of men from their wives and children was a bad thing.

We asked if they would like to work at Strathcona Sound permanently, after the mine opened. Fifty-two per cent of the 23 respondents said they definitely did, 30 per cent said they probably did, and the remaining 18 per cent said they probably did not or were not sure (9 per cent). None said they definitely would not want to work at the mine, after it opened.

The data which are most relevant to the question of an optimum rotation interval were obtained in response to the question asking whether the workers would prefer "to work eight weeks in camp with one week at home, and earn more money every work trip; or to work six weeks in camp with one

week at home and earn the same money as you do now; or to work four weeks in camp with one at home and earn less money every work trip than you do now; or to work two weeks in camp with one week at home and earn very much less money than you do now?" The responses show a very strong inclination, on the part of the 21 men who answered this question, in favor of the longer work rotation alternatives. One third said they would prefer the longest work rotation alternative - eight weeks at work with one week at home, and 48 per cent said they would choose the current rotation pattern with six weeks at work followed by one week at home. Thus no less than four fifths of the men interviewed said they would prefer a work interval as long as, or longer than, that which they were now experiencing. Three men, 15 per cent of the total said they would prefer the four weeks at work and one week at home alternative, and only one man said he would prefer the two weeks at work and one at home experienced by oil exploration workers in the Delta.

We further asked the workers why they chose as they did and received answers from 20 men. Those who said they would like to work eight weeks without a break said that they wanted to make more money. Those who chose the six weeks work interval now in operation said that this pattern was long enough but not too long. Those who wanted to work for shorter intervals said they liked to go hunting (2 men) and that they wanted more time at home (one man).

TABLE 9.1

Feelings of Arctic Bay Workers About Various  
Aspects of their Work Experience with  
Strathcona Mineral Service  
(Percentages)

	Liked Very Much	Liked a Little	Didn't Care Indif- ferent	Dis- liked a Little	Dis- liked Very Much	Number of Respond ents
Your work activity, what you did on the job	37%	16%	16%	21%	10%	19
The bosses who told you what to do	22	17	52	9	0	23
Other Native workers	27	32	41	0	0	22
Other white workers (or whites on the job)	30	35	31	4	0	23
Food on the job	35	9	26	30	0	23
Your free time (non- work time) in the camp	39	26	35	0	0	23
The flights between your home and the camp	50	14	29	7	0	14

Of course there were some sources of dissatisfaction. In order to probe these we asked the workers how they felt about various aspects of their work experience. Their responses to the questions about work, camp, and transportation are summarized in Table 9.1. Our earlier dis-

cussion in connection with the Coppermine data, of the confidence which may be placed in Inuit responses to this type of question, applies here as well, of course.

The data in the table show generally that most of the workers were reasonably well satisfied with most aspects of their employment. Only two aspects "the bosses" and "the food", received "liking" endorsement from less than half the respondents. "Other white workers", free time, and flights between home and camp received the highest proportion of liking responses, about two thirds in each case. When we compare these responses with the responses of the Baffin Island employees of Pan Arctic we find some interesting differences. The Pan Arctic employees were more favorable toward their work activity, their bosses, and the food on the job, than were the SMS employees, while the latter were more favorable toward their free time activities, and the flights between home and camp than were the Pan Arctic employees.

The reasons for some of these differences seems obvious: others do not. It is difficult to know why there are differences in attitude toward work activities and toward bosses, especially since most of the Pan Arctic employees were working at laboring jobs, while many of the SMS employees were working at semi-skilled or even skilled jobs. We noted earlier that it is SMS policy to upgrade the occupational status of the native workers just as rapidly as



it is possible for them to do so. Perhaps a consequence of this orientation is that the SMS employees feel more "pushed" by the work situation, and by their foremen, than do the Pan Arctic workers who do not have to contend with such upgrading expectations. This, then, may account for the greater expressed dissatisfaction of the SMS, as compared with the Pan Arctic, employees, in respect to work activity and to "bosses".

The explanation of the other three differences is quite apparent. The food probably is better at the Pan Arctic camps than it is at the SMS camp since oil companies try to "set a good table" to sustain employee morale. Since many of Arctic Bay men had worked for Pan Arctic and SMS their judgements are probably accurate. SMS, having a much larger work camp than are most oil camps, was able to provide a wider variety of recreational equipment (pool tables, "air hockey" tables, ping pong tables, etc.) than the latter. And finally, of course, the airplane flights from Strathcona Sound to Arctic Bay are very much shorter than are the flights from Arctic Bay to Rae Point, and beyond, which the Arctic Bay workers said they disliked.

By contrast with the Coppermine workers, the Arctic Bay workers, like the Baffin Island workers indicate more dissatisfaction with all aspects of the work experience. Thus only 53 per cent of the Baffin workers said they liked their work activity, as compared with 89 per cent of the first year Coppermine workers, and the same contrast is true of all other entries in the table.

The workers were further asked "which of these things (listed in the table above) did you like best, and dislike most, about your current job, and about your previous job you worked at (at SMS)?" Their responses, found in Table 9.2, indicate that work activity was the most liked aspect and food on the job was the job was the most disliked of the aspects listed. The bosses also showed up as rather popular.

TABLE 9.2  
Aspects of Work Experience Mentioned as Most  
Liked and Most Disliked by SMS Workers from  
Arctic Bay

Things Like Most	Current Job	Previous Job	Things Dislike Most	Current Job	Previous Job
Work activity	28	47	Work Activity	5	6
Bosses	23	14	Bosses	5	6
Inuit workers	12		Inuit workers	5	
White workers	0	0	White workers	5	0
Food on the job	0	0	Food on the job	14	6
Free time	6	7	Free time		
Flights to camp	12		Flights to camp	5	
Nothing, all the same	23	33	Nothing, all the same	61	82
Number of respondents	18	15	Number of Respondents	21	16

As with the Coppermine sample, we sought to assess the reactions of the Arctic Bay men working for SMS to separation from their homes and their families by asking them four questions. The first was "While you were working at Strathcona Sound, how did you feel about: separation from wife, separation from children, separation from friends and relatives, and not being able to take part in community activities?" The response alternatives provided, and the responses of the men interviewed, are seen in Table 9.3.

TABLE 9.3

Feelings of Arctic Bay Men Working for SMS  
About Separation from Family and Community  
While at Work (Percentages)

Separation Condition	Liked Very Much	Liked a Little	Didn't Care Indifferent	Dis-liked a Little	Dis-liked Very Much	Number of Respondents
Separation from wife or girl friend	0%	6%	58%	21%	15%	19
Separation from children	0	6	67	10	17	18
Separation from friends and relatives	0	10	82	4	4	22
Not being able to take part in community activities	0	14	46	23	17	22

The second question asked: "Men working away from home often worry about things. How much did you worry about: something happening to my wife; something happening to my children; something happening to other relatives; kids might get into trouble without their father; wife might get into trouble.

The responses of the men are found in Table 9.4.

TABLE 9.4  
Worries Mentioned by Arctic Bay Men  
Working for SMS (Percentages)

	Number of Respon dents	Worried Very Much About This	Worried a Little About This	Didn't worry at all About This
Something happening to me (accident or death)	22	4	27	68
Something happening to my wife (accident, illness, death)	19	16	37	48
Something happening to my children (accident, illness, death)	19	10	43	47
Something happening to other relative (accident, illness, death)	22	5	45	50
Kids might get into trouble without their father	19	5	64	31
Wife might get into trouble	18	6	10	84



These data do reflect concern on the part of a majority of the respondents with respect to all of the items, with the exception of the first and the last (something happening to me" and "my wife might get into trouble"). However almost half of the respondents said they did not worry about each of these items excepting only the possibility that "kids might get into trouble without their father". There is a rather sharp contrast between these responses, and those of the men in the Baffin Island sample interviewed in 1974, which included some of the men as are in this SMS employee sample. The former group reflected more concern about wives and children than does the latter. However there is yet a great deal more expression of concern than was found on the part of the first year Coppermine workers.

The other questions asked "how do you think your wife feels about your being away from home when you are working at Strathcona Sound" and "How do you think that your children feel about your being away from home when you are working at Strathcona Sound?" In reply to the first question 33 per cent of the men said they thought their wives disliked it "some", 33 per cent said they thought they were "indifferent", 11 per cent said they thought their wives "liked it", and 23 per cent said they did not know. In reply to the second question, 41 per cent said they thought their children disliked it "some", 36 per cent said they thought their children were "indifferent" and 15 per cent said they thought their

children "liked it" and 18 per cent said they did not know.

The final question in this vein asked: "Does it bother you very much that your wife and children are sometimes very lonesome for you?" Only 18 per cent of the married men replied that it "bothers me a lot", 46 per cent that it "bothers me a little" and 36 per cent said "it doesn't bother me." Again on these three questions, we find that the Arctic Bay respondents during the winter of 1975-76 say they think their wives and children miss them when they are away at work considerably less than the Baffin Island sample did the previous year. It follows, of course, that the Arctic Bay men report being bothered far less than by their loved ones' reactions than did the Baffin Island respondents. The explanation of course, is that since the Arctic Bay men were able to return home every Saturday night, the separation experienced is in fact less stressful for the men, and for their wives and children.

The sample members were asked a series of questions to discover whether they had worked under alternative work rotational arrangements, and if so, what was the pattern of these arrangements, which did they prefer, those at Strathcona Sound, or the differing arrangement that they had earlier experienced, and why they felt that way. Of the 23 men in the sample, nine reported having had previous rotational work experience before coming to work for SMS. Three had worked under arrangements involving six days at work and one day at home. Four

had worked for Pan Arctic under a 20 days at work, 10 days at home arrangement. One had worked on three month work rotation with the period at home unspecified, and one had worked on a six month work rotation with two months at home.

Of the three men who had worked the six and one day rotation pattern, one failed to specify whether he preferred that or the SMS rotation pattern, one said he preferred the SMS pattern but gave no reason, and one said there was no difference between the two because "we can go back to Arctic Bay on any weekend that we want; because it's not far from camp."

Of the four men who had worked for Pan Arctic on the 20 and 10 day rotation pattern, two said they preferred the SMS pattern and two said they preferred the Pan Arctic rotation pattern. The first said they preferred the SMS pattern because it gave more time for hunting, and because the mine site was closer to home. The other two said they preferred the Pan Arctic pattern, one because he made more money there (the wage rate being higher) and one because the Pan Arctic pattern gave him more time at home and more time for hunting. The seeming contradiction between the two different "more time at home" arguments is resolved by the fact that, as we have noted, the SMS pattern gave to the Arctic Bay men (only) more frequent (weekly) time at home, whereas the Pan Arctic pattern gave the men a higher proportion, and more concentrated blocks, of time at home.

The man who had worked on a three month work rotation schedule said he preferred the SMS pattern, but gave no reason. The man who had worked on a six month at work and two months at home schedule said he preferred the SMS pattern because the six month working period was too long.

At least three things seem clear from this small sample of comparisons. The first is that the proximity of the camp site to the Arctic Bay townsite eliminated most of the hardship from the six week work rotation period for many of the men so that even a 6 day work rotation period did not seem significantly different to some of the men. The second is that the Pan Arctic type 20 and 10 day work rotation pattern which involved genuine isolation from home was seen by some men as having advantages over the easy accessibility of the minesite to the townsite, because of the higher proportion and the larger blocks of time spent at home, and because of the income differentials. The third is that neither of the men who had experienced work rotation periods of 3 months or longer expresses a preference for these.

We wondered what the impact of long work rotation periods might be on the availability of game meat to the men's families and so we asked the men "How often did you go hunting during your time at home between work shifts?" The responses seem surprising: of the 19 men who answered, only one said that he went "about every time", five said they went "most of the times", three said they went "once in a while", and the remaining 10



men, slightly more than half, said they went "not at all". It seems most improbable that half of the sample failed to go hunting while they were on their "long break" at home to provide meat for their families. We suspect that the explanation is that a certain number, perhaps most of the men, interpreted the question as referring to the Sundays they were at home for one day only, during the work period, rather than to the long break at home at the end of the six week work period. That a proportion of the respondents, at least, interpreted the question correctly is seen in the fact that in response to the question "Did you often go out for two days or more, or usually only for one day of hunting?" two thirds of the respondents said it was usually for two days or more.

Toward the end of the interview the workers were asked "What changes would you like to see to make this job better, or less bad?" Suggestions were received from only five men. Two men said they would like fairer or more considerate supervisors, and one each mentioned a shorter rotation period, work closer to home, and a higher rate of pay.

In summary, the interview data show that the Arctic Bay workers did not respond as enthusiastically about their experience working for SMS as the first year Coppermine workers did. However they were more enthusiastic than the Baffin Island workers whose work period, with Pan Arctic, was 20 days. That they were strongly favorable is seen in the proportions who endorsed the long work rotation schedule

(broken however by a day at home every weekend), and who said that they would like permanent employment at the mine after it is opened. It is apparent from the men's responses that the separation from their families under these conditions does not bother them as much as it did the Baffin Island workers. They do worry some about the welfare of their wives and children when they are away at work, but it is clear from the pattern of their responses that this is a price they are quite willing to pay for the opportunity to work, in the absence of employment closer to home.

The evidence is quite clear that their weekly return to their homes and the proximity of their work site to their homes safeguards them from the higher levels of concern for the family that were found for the Baffin Island sample working for Pan Arctic at camps very much farther from the home settlement.

#### Reactions of the Arctic Bay Wives to their Husband's Employment

Interview data are available for 19 wives but all of these women were not married to the 19 married men in our sample because some husbands and some wives were not available or refused to be interviewed. These women were somewhat older than were the wives of the Baffin Island sample described earlier. The median age was about 26. Only two were under 20 and six of the 19 women were over 35 years of

age. However none had been married less than three years. Thirty-seven per cent had been married between three and eight years and one third had been married between six and twelve years, and the remaining 30 per cent had been married for more than 12 years, including 11 per cent who had been married more than 12 years. Only one woman was childless. The median number of children born to them was three. About one third had only one or two children and one quarter had five or more, the largest number being six.

Twelve of these 19 wives had had no schooling, and four had had only one year, the remaining three reporting eight or more years. Only one had had some residential schooling.

As was true of their husbands, these women were far more opposed to their husband's employment than were the wives of the Coppermine workers. They were also more opposed than the wives in the Baffin Island sample were to their husbands' employment by Pan Arctic. In response to the question "Do you think it is a good thing for this settlement for many of the men here to work away from home at camps like Strathcona Sound?" 10 of the 19 said "no" and 9 said "yes". When asked why they felt this way, three who had answered affirmatively referred to the income that the men were thus able to earn, three gave other reasons, and four failed to respond. Of the 10 who said that it was not a good thing, three said that the absence of the men disrupts

community life, and the rest failed to respond. Yet despite these feelings, in response to the question "Did you want your husband to go to work at (the Strathcona Sound) camp before he went the first time?" 63 per cent of the women said "yes for sure", 5 per cent said "yes maybe" and only one said "no maybe". None said "no for sure", but the remaining 26 per cent said they did not know, an answer which certainly reflects ambivalence. Eleven women gave reasons for wanting him to go, nine mentioning the money or the goods which they could purchase which would result, and two saying he wanted or needed work. None of the women gave reasons for not wanting him to go.

The data in fact suggest that the women may have been differentiating between community welfare and family welfare. Thus in response to the question "Would you like (your husband) to go to work permanently at Strathcona Sound after the mine opens?" 13 women, 78 per cent of the 18 women responding, answered "yes for sure" (50 per cent) or "yes maybe" (28 per cent). One answered "no for sure" and three "no maybe".

The reasons given by those wanting their husbands to work are the same as we have seen before. All of those responding affirmatively mentioned the money to be earned and the goods that could be purchased. Of those who did not want their husbands to take employment with Pan Arctic all one said she would be lonely and another feared the work might be dangerous.



The ambivalence of the women toward their husbands' working for SMS is further seen, however, in their responses to the question: "How long would you like for him to work this winter?" Half of the 16 women who responded said "as long as possible". Of the remainder, three said "not work at all", two said for one month, and one each said for three months, four months, and seven months. A somewhat similar spread of attitudes was found in response to the question: "Which one would you like more, for your husband to work eight weeks in camp with one week at home and earn more money every work trip; or to work six weeks in camp with one week at home, and earn the same money per trip as now, or to work four weeks in camp with one week at home and earn less money every work trip than you do now, or to work two weeks in camp with one week at home and earn much less money than you do now?" It is noteworthy that faced with the choice of a longer work rotation interval, the largest proportion, eight of the 18 women who answered the question, said they would prefer the current six week work period. Four each said they would prefer the longer eight week work period, and the shortest two week work period. The remaining two said they would prefer the four week work period.

All of the wives were asked "Did you have any troubles while your husband was away?" Only two women answered in the affirmative; one reported that she had been upset by his absence and said she had had difficulties with her children.

All of the wives were further asked "Were you worried or unhappy when your husband was away at work?" Thirteen women said no, and six said "yes". A much smaller proportion than among the Coppermine women. One of the latter said she was lonely, and one said she feared for her husband. The rest did not specify their worries.

All of the women were asked "Did you have less meat from hunting to eat while your husband was working at Strathcona Sound because he could not go hunting so much?" Ten out of 18 of the wives answered "yes" and the remaining eight answered "no". We understand from informed whites in Arctic Bay, that while game is plentiful during the summer, it is often much less so during the winter. Thus the conclusion of these informants was that the work rotational arrangement established by SMS with the workers employed for six weeks before their two week "long break" at home would result in some shortages. The fact that these workers were at home on Sunday did not give them adequate opportunity to go hunting, we were told. Arctic Bay hunters are able to kill some game during the winter, though not as plentifully as in summer, however, and this community is sufficiently unacculturated that there is yet extensive sharing of wild food around the settlement. We feel confident that our data reflect not severe shortages, but rather the fact that in 10 families there was less of an abundance of meat than the family had been used to in the past. This interpretation is

supported by the fact that the very next question on the interview schedule asked whether the wife wanted her husband to go to work permanently at the mine after it opens, and as we have seen, three fourths of the wives said that they did. It is perhaps significant that a higher proportion of wives whose husbands were working the 42 and 14 day rotation schedule, as compared with those whose husbands were working the 20 and 10 day rotation schedule, said that they had experienced meat shortages, the proportion being 56 as compared with 40 per cent.

All of the wives were asked "Are there any changes in the work program you would like to see to make it better for you?" Only two women made suggestions, both saying they would like to have their husbands home on weekends.

In an attempt to further probe the women's reactions to various work schedules we asked them "Has your husband ever before held a job where he worked at a camp away from home, eating and sleeping there while he was on the job?" If she answered "yes" we asked for details about the work rotation schedule and then asked "Do you like your husband's work rotation arrangements now, working at Strathcona Sound at the camp for six weeks and then at home for two weeks better than you liked the rotation arrangements on this earlier job?" We further asked her why she felt that way.

Only five of the women reported that their husbands had worked under other work rotational arrangements. Four

of the husbands had worked for Pan Arctic on a 20 days at work, 10 days at home pattern, and one woman could not recall the rotation schedule. Of the four whose husbands had worked for Pan Arctic, two said they preferred the Strathcona Sound rotation arrangement, in both cases because they said their husbands could come home on weekends. One woman said she preferred the Pan Arctic arrangement, because he earned more money and because during his 10 day long break he had more time to go hunting. The last woman said she had no preference between the two. The woman who could not recall the rotation schedule could not express a preference.

Summary. By contrast with the sample of Baffin Island women whose husbands worked for Pan Arctic, who were initially reluctant to have their husbands accept the employment, but then became more enthusiastic, it seems apparent that the Arctic Bay women in our sample were initially enthusiastic, but thereafter gave indications of much more ambivalence. If an obvious reason for this ambivalence can be identified it would seem to be the fact that a clear majority of the women said that they had experienced a shortage of game meat since their husband's employment. In support of this, we noted that a very large minority of the men said that they never went hunting when they were home, on weekends we infer. The proportion of women reporting a shortage of game meat is the largest we have encountered in any of the



samples considered to date. It should be added that loneliness and worry are not significant sources of dissatisfaction or concern, for all but a few of the women interviewed. It seems apparent that with the work site so close to the settlement and with the men able to come home on weekends, and even just for an evening, should the occasion demand, the loneliness and worry which were commonly reported by women in the other samples are not experienced.

Reactions of the Arctic Bay Children to their Fathers' Employment at Strathcona Sound Questionnaire returns were obtained from 19 children of the Arctic Bay workers. Half of them were no more than 11 years of age, six were aged eight to nine, and six were between 14 and 16 years of age. Eight were girls and 11 were boys. Two of the oldest had had no schooling; the rest had completed between three and eight years.

As we found true of the Coppermine children, and the Baffin Island children, the Arctic Bay children interviewed expressed enthusiastic support for their father's employment at Strathcona Sound with few exceptions. Thus to the question "Were you happy or unhappy to have your father working for Gulf last winter?" 17 children said they were happy, two children said they were both happy and unhappy, and none said they were unhappy only. Asked "What things made you happy?" seven children said their families had more money,

six said that they were less strictly controlled, one said the family had more food, and five did not give any reasons. To the question "What things made you sad?" one child replied that he missed his father. For most children it would appear that the advantages quite clearly outweighed the costs, as is apparent also from their responses to the question "Do you want your father to keep on working at Strathcona Sound?" All but one of the children said they did, and one said he did not. The reasons given by all of the children wanting their fathers to continue working again referred to the money he would earn (9 children) and to "more toys" and "more food" (one each). The reason given by the child who did not want his father to continue working was that he could not do the things he wanted to with his father when the latter was away.

When asked "Were you proud to have your father working at Strathcona Sound last year" 15 of the children answered that they were, and four children said they were not.

Further indications of the children's emotional reactions to their experiences with a father absent because of rotational employment is found in their answers to questions relating to their preferences after they grow up. Thus boys were asked "Would you like to have a job like your father's where you go and work away from home for about six weeks and then come home for two weeks?" Ten of the 11 boys said that they would, giving as reasons the money to be made, the need

to work and the excitement of travel. One boy said he would not, saying it involved being away from home too long. Similarly, the girls were asked "After you are married, would you like for your husband to have a job like your father's where he goes and works away from home for about six weeks and then comes home for two weeks?" Four of the eight girls in the sample said that they would, and one said she would not, and three did not answer. Of the four responding affirmatively, three gave as their reason their view that it was a good job. These responses give further support to the indications that while many of the children do miss their fathers they do not miss them profoundly, and that the material advantages resulting from their fathers' employment absences exceed the emotional costs.

In summary, we have seen that while both mothers and children often miss the absent husband and father, and while the former experience a certain amount of worry, and occasional trouble during the absences, they would definitely prefer the men to continue working at this rotational employment, than otherwise.

### The Igloolik Sample

As in the case of Arctic Bay, we do not have data on the characteristics of all of the Igloolik men who have ever worked for SMS, against which to assess the representativeness of the interview sample. Nor are we able to determine

the representativeness of the wives who are included in our sample. Thus there is no way of telling whether the attitudes expressed by our respondents reflect a biased sampling, or not. A further limitation of this aspect of the study is that we have no data for Igloolik which could be used as indicators of the impact of the rotation employment on the community.

Attitudes of the Workers from Igloolik Toward the 42 Day Work Rotation Schedule. As of the first of December, 1975, 39 men from Igloolik had worked for varying lengths of time for Strathcona Mineral Services. As many as possible of these workers and their families were contacted by two Inuit Interviewers who were residents of Igloolik between January and April 20, 1976. As a consequence of these efforts, interviews were actually held with 20 of the men who had worked for SMS as of Dec. 1, 1975, with 16 wives, and with three children. We are not able to report on the number of wives who should have been interviewed, since we do not know how many of the 19 workers who were not interviewed were in fact married. It is quite clear that our "sample" of three children aged 8 to 16 years cannot be representative of all of the children of the Igloolik workers.

No information is available on why returns were not obtained from the 19 workers for whom no interview schedules were received. We suspect that one reason was that these men were away working at Strathcona Sound at the time that the interviewing was under way, and that for some reason the



interviewers failed, or were unable to contact them. We also know that the interviewers wearied of their work toward the end of the interview period, and so failed adequately to exploit opportunities to interview some on the list of interview subjects when opportunities came their way.

In the pages which follow, we shall present the results of the attitude survey conducted in Igloolik among the workers and their families. As earlier, we shall present the data that we have for the workers first, followed by that for their wives and children.

**Worker Characteristics.** We do not have data on the characteristics of the total population of Igloolik who ever worked for SMS, against which to assess the representativeness of those actually interviewed.

The Igloolik employees of SMS who were interviewed were rather similar, generally, to the Arctic Bay men who worked for SMS. As a group they were somewhat younger with a median age of 30. Six were no more than 25 years of age, and only one was over 40 years of age. Fifteen were married and five were single. All of the married men had children. The median number was four; three men had no more than one or two, while seven men had five or six children. Six had no children over the age of five and so no children's interviews could be obtained for them.

Over half of the men (55 per cent) had had no schooling at all, while the remainder had all had four or more years of

schooling, the largest number being eight years. Only eight of the men, less than half, had had some type of special job training. Two men each had had heavy duty equipment operation training, construction trade training, housing maintenance, and other training.

Twelve of the men had had full time trapping experience. Six had had no more than two years of experience, and five men had had more than 15 years of experience. Only three had trapped full time within the last five years, and six of the 12 had stopped trapping full time at least 12 years ago.

All had had some previous wage employment experience. Responses to the question "Who did you work for longest, before you began working at Strathcona Sound?" showed that the most frequent long-term employers were the local Co-operative (five), private employers (exclusive of oil companies, five men), and oil companies (four men). The largest proportion, about one third, had worked as unskilled laborers, one quarter had driven trucks, bombardiers. One quarter had done construction work, and the rest had held assorted other jobs. The median number of months worked during the previous five years was about 30; three of the men had worked no more than 12 months, but one quarter had worked for at least three of the five years.

By contrast with the Arctic Bay workers, only one of the Igloolik men began working at Strathcona Sound prior to 1975. Thirteen men began working there since July, 1975.

The significance of this, of course, is that only one of the men has a personal backlog of experience working at the mine site. More generally the settlement at Igloolik, by contrast with Arctic Bay, does not have a long history of familiarity with the work setting, or with the kinds of work which are available.

Worker Attitudes. The attitude data show that the Igloolik workers voiced very favorable reactions to their very long rotation work shifts with SMS. All 20 of the men interviewed said they believed that this employment opportunity was a good thing for their home settlement. When asked why, 55 per cent said it gave the men an opportunity to work, 20 per cent mentioned the money that was earned, one man said it provided an opportunity to learn new skills, and the remaining four mentioned assorted other reasons, or failed to give any. It is noteworthy that none of the men said they felt it was a bad thing for the community because of the separation from wife and family that it imposed.

We asked if they would like to work at Strathcona Sound permanently after the mine begins operation there. Half of the men answered "yes" and five more answered "yes, if" they could have their families there with them (four) or if they did not find work in Igloolik (one). Only one said he definitely would not want to work there, and three said they were not sure. When asked why they had answered as they did,

those answering affirmatively said the wages were good (four), they needed the work (four), they did not have to work too hard there (one), and good trades could be learned there (one). Those answering negatively said they were too homesick (one) and they did not want to work underground (one). Eight did not answer this question.

The data which are most relevant to the question of an optimum rotation schedule were obtained in response to the question asking whether the workers would prefer "to work eight weeks in camp with one week at home, and earn more money every work trip, or to work six weeks in camp with one week at home and earn the same money as you do now; or to work four weeks in camp with one at home and earn less money every work trip than you do now; or to work two weeks in camp with one week at home and earn very much less money than you do now?" The responses show a very strong interest, on the part of the 20 men who answered this question, in favor of the longer work rotation alternatives. Seven,mmen, 35 per cent, said they would prefer the longest work rotation alternative - involving eight weeks at work with one week at home, and 45 per cent said they would choose the current rotation pattern with six weeks at work followed by the break at home. This is the same proportion, 80 per cent, which was found in the Arctic Bay sample of workers employed by SMS, and is certainly remarkable in view of the lengthy work imposed separation from home and family that the Igloolik men were



TABLE 9.5

Feelings of Igloolik Workers About Various  
Aspects of their Work Experiences with  
Strathcona Mineral Services  
(Percentages)

Work Aspect	Worker Responses					
	Liked Very Much	Liked a Little	Didn't Care Indif- ferent	Dis- liked a Little	Dis- liked Very Much	Number of Respondents
Your work acti- vity, what you did on the job	40%	20%	5%	10%	25%	20
The bosses who told you what to do	40	0	30	10	20	20
Other Native workers	15	30	55	0	0	20
Other white workers (or whites on the job)	10	20	60	5	5	20
Food on the job	65	10	20	5	0	20
Your free time (non-work time) in the camp	5	20	25	15	35	20
The flights be- tween your home and the camp	0	15	75	10	0	20

enduring at the time they were interviewed. The remaining four men, 20 per cent, all said they would prefer four weeks at the work camp followed by the long break; none said they

would prefer a 14 - 7 day rotation schedule.

We further asked the workers why they chose as they did, and received answers from 19 men. All but one of those preferring an eight week work period said they wanted to earn more money and the remaining person said being unemployed made him restless. All those preferring the current work schedule said that it was neither too long nor too short. Of the four preferring the four week work period, three said they wanted more time at home, and one said simply it "would be better". None said they wanted more time go go hunting.

Of course there were some sources of dissatisfaction. In order to probe these we asked the workers how they felt about various aspects of their work experience. Their answers to the questions about work, camp, and transportation are summarized in Table 9.5. These answers show that those interviewed were generally quite satisfied with some aspects - the work activity and the food on the job; they were ambivalent toward others - the bosses, they were indifferent toward others - fellow workers on the job, both native and white, and the flights between home and camp, and they expressed the most dislike for their free time in camp. This last must be expected I think; all our interviewing has tended to suggest that separations are better endured during work time than during free time. The data show some interesting similarities and dissimilarities when they are compared with

the responses of the Arctic Bay men working for SMS. The reactions to the work activity and to other native workers were about the same. The Igloolik men expressed more dislike for the bosses, and the free time, and less liking for white co-workers than did the Arctic Bay men. The difference in attitude toward free time is easy to understand, since the Arctic Bay men experienced only brief separations from their families, but no ready explanation for the other two differences suggests itself. The Arctic Bay men more frequently said they disliked the food, reflecting a stronger preference for the traditional meat diet.

The workers were further asked "Which of these things (listed in the table above) did you like best, and dislike most, about your current job, and about the previous job you worked at (at SMS)?" Their responses, found in Table 9.6, show that (as with the Arctic Bay workers) work activity was the most liked aspect, and free time was the most disliked aspect. The bosses were yet the object of ambivalence.

We sought to determine the reactions of the Igloolik men working for SMS to separation from their homes and families by asking them four questions. The first was "While you were working at Strathcona Sound, how did you feel about: separation from wife, separation from children, separation from friends and relatives, and not being able to take part in community activities?" The response alternatives provided, and the responses of the men interviewed, are seen

TABLE 9.6

Aspects of Work Experience Mentioned as  
Most Liked and Most Disliked by  
SMS Workers from Igloolik

Things Like Most	Current Job	Previous Job	Things Dis- like Most	Current Job	Previous Job
Work activity	83%	40%	Work activity	7%	33%
Bosses	12	20	Bosses	25	22
Inuit workers	0	30	Inuit workers	7	0
White workers	6	10	White workers	0	11
Food on the job	0	0	Food on the job	2	0
Free time	0	0	Free time	50	44
Flights to camp	0	0	Flights to camp	0	11
Nothing, all the same	0	0	Nothing, all the same	0	0
Number of respondents	17	10	Number of respondents	16	11

in Table 9.7. The data show that by contrast with all of our other samples, none of the Igloolik men say they like the separation, and sizable majorities say that they dislike the separation from their wives and girl friends (30 per cent dislike it "very much") and from their children (33 per cent dislike it "very much"), distinctly larger, in fact, than we have found with any other sample interviewed.



TABLE 9.7

Feelings of Igloolik Men Working for SMS  
About Separation from Family and Community  
While at Work (Percentages)

Separation Condition	<u>Workers' Reactions</u>					Total Respondents
	Liked Very Much	Liked a Little	Didn't Care Indifferent	Dis-liked a Little	Dis-liked Very Much	
Separation from wife or girl friend	0%	0%	43%	27%	30%	19
Separation from children	0	0	27	40	33	15
Separation from friends and relatives	0	0	75	20	5	20
Not being able to take part in community activities	0	0	55	45	0	20

The second question asked: "Men working away from home often worry about things. How much did you worry about: something happening to my wife; something happening to my children; something happening to other relatives; kids might get into trouble without their father; wife might get into trouble?" The responses of the men are found in Table 9.8.

These data do reflect definite concern on the part of a majority of the respondents with respect to all of the items, with the exception of the first "something happening

to me". Only the item relating to "other relatives" elicited responses reflecting little concern. There is a sharp contrast here with the responses of the Arctic Bay men working at Strathcona Sound, with 47 per cent or more of the latter saying they did not worry at all about any of these things, excepting only the item "kids might get into trouble". This is eloquent evidence of the extent to which proximity of home to work-site and/or more frequent visits home serve to allay anxieties and worries. The responses are more similar to those of the Baffin Island workers employed by Pan Arctic, but the Igloolik workers yet express more concern than the latter. Since the distance separating work site from home is quite similar for these two groups of workers, the greater expressed worry of the Igloolik men is probably an indication that worries about the welfare of loved ones tend to build up as the separation period increases in length.

Two other questions asked "How do you think your wife feels about your being away from home when you are working at Strathcona Sound?" and "How do you think that your children feel about your being away from home when you are working at Strathcona Sound?" In reply to the first question three men said their wives were indifferent, two said they disliked it a little, and eight said they disliked it considerably. Two did not answer. All nine respondents to the second question said their children disliked it, all

TABLE 9.8

Worries Mentioned by Igloolik Men  
Working for SMS (Percentages)

Specific Worry	Number of Respond- ents	Worried very much about this	Worried a little about this	Didn't worry at all about this
Something happening to me (accident or death)	20	5%	20%	75%
Something happening to my wife (accident, illness or death)	15	40	54	6
Something happening to my children (accident, illness or death)	15	33	47	20
Something happening to other relative (accident, illness or death)	19	0	21	79
Kids might get into trouble without their father	15	13	60	27
Wife might get into trouble	15	8	54	38

but one disliking it "considerably" or "hating it". Again, these men report much more dislike of the work imposed separation by their wives and children than do the Arctic Bay employees of SMS who are able to return home every week-end.

The final question in this vein asked: "Does it bother you very much that your wife and children are some-

times very lonesome for you?" Of the 14 (out of the total of 15) married men who answered this question, almost half, 43 per cent said it bothered them "a lot", 50 per cent said it bothered them "a little" and only one said that it did not bother him. Again the contrast with the Arctic Bay employees of SMS is striking: more than twice as many Igloolik, as Arctic Bay men said it bothered them "a lot", while five times as large a proportion of the latter group said that it didn't bother them.

The sample members were asked a series of questions to discover whether they had worked under alternative work rotational arrangements and if so, what was the pattern of these arrangements? If they had, they were asked which did they prefer, those at Strathcona Sound, or the differing arrangement that they had earlier experienced, and why they felt that way. Of the 20 men in the sample, five reported having had previous rotational work experience before coming to work for SMS. Two had worked under arrangements involving 42 days at work and 7 days at home, and one each had worked eight week ten week and 6 month work periods, with no specified period at home.

Of the two men who had worked the 42 - 7 day rotation pattern, one failed to specify whether he preferred that or the SMS rotation pattern, and one said he preferred the SMS pattern because it was "better organized". The other three, who had worked at rotation jobs having longer work periods



all said they preferred working at Strathcona Sound, two because the work period was shorter and one, who had worked on the DEW Line, because there were other Inuit on the job at Strathcona Sound.

It is of interest, from this small sample of comparisons, that such rotation work as the Igloolik men interviewed had earlier experienced all involved a longer work period than the work at Strathcona Sound. Thus, unlike Arctic Bay, they do not have shorter work periods for comparison; however they are aware of the fact that the Arctic Bay men are able to go home every weekend.

We wondered what the impact of long work rotation periods might be on the availability of game meat to the men's families and so we asked the men "How often did you go hunting during your time at home between work shifts?" The responses seem surprising: of the nine men who answered, only one said that he went "about every time", six said they went "once in a while", and the remaining two men said they went "not at all". Five men provided the further information that they usually went out on hunting trips lasting two or more days, and one said he usually went out for only one day.

Toward the end of the interview the workers were asked "What changes would you like to see to make this job better, or less bad?" One or two suggestions were received from each of 14 men. The largest single group, five men,

wanted to have their families living at the work site, and three wanted more interesting time-off activities. Two men each mentioned easier work, a quicker way to send money home, more considerate or more easily understandable supervision, more fair supervision, and having all in a worker dormitory go to sleep at the same time so they can get needed rest. Only one suggested a shorter rotation period, which is surprising, and noteworthy. We should add, however, that these men were probably aware of the fact that the SMS company has taken the position that a shorter work period would be very difficult to arrange.

Summary. It seems clear that the Igloolik men who were interviewed were quite enthusiastic about the work opportunity at Strathcona Sound. All said they felt that it was a good thing for the community, and all but a few said they would like to work there after the mine opened, though several added as a qualification, if their families could move to the Sound. At the same time it must be emphasized that these men reported missing, and worrying about their loved ones more frequently than did any of the other samples for whom we have data. They also report that their wives and children miss them, and that they are bothered by knowing this. Thus the Igloolik workers are both more enthusiastic about SMS employment and more often report that they and their families are bothered by the separation than the Arctic Bay employees of SMS. These

differentials obviously reflect the greater availability of alternative employment opportunities, and the more frequent visits home, which are available to the Arctic Bay men.

It is remarkable that when given a choice of options, a large minority of the Igloolik men said they would prefer an eight week work period, and all but four of the rest said they would prefer continuation of the current six week work period. Again we must interpret this as reflective of the scarcity of alternative employment opportunities in Igloolik, and the importance of purchasing power to these men. Their explanations for some of their responses give substantial support to this interpretation.

It is noteworthy that although many of the respondents failed to answer the question, all but one said he goes hunting for meat only "once in awhile" (six) or "not at all" (two). What the significance of this is for family meat supplies was determined in the interviews with the wives.

#### Reactions of the Igloolik Wives to Their Husband's Employment

Interview data are available for 16 wives of Igloolik men working at Strathcona Sound. These women were slightly older than the wives of the Arctic Bay SMS employees: the median age was 30. One was under 20 years of age, and none

were over 35 years, however. In typical Inuit fashion they had married young: the median number of years of marriage was 12; none were married for less than four years, and two had been married as long as 19 years. None of the women were childless. The median number of children was four. Only two women had no more than two children, and five had six or more.

Half of these 16 women had no schooling. Three had no more than six years, and five had had seven or more years. Six had some residential schooling.

As was true of their husbands, these women were more favorable to their husbands' employment at Strathcona Sound than were the wives of the Arctic Bay workers. Thus in response to the question "Do you think it is a good thing for this settlement for many of the men here to work away from home at work camps like Strathcona Sound?", 69 per cent of the women said that it was, 25 per cent said they were not sure, or that it was good and bad, and only one woman said she felt it was a bad thing. When asked why they felt this way, of those who had answered affirmatively, seven said that it provided the men with an opportunity to work, and two referred to the money that they earned. Of those who answered ambivalently or negatively, only one gave a reason, saying that there was too much gambling as a result of the employment.

In response to the question "Did you want your hus-



band to go to work at (the Strathcona Sound) camp before he went the first time?" eleven said "yes, for sure", two said "no, maybe" and three said "no, for sure". The reasons given for wanting him to go included the money he would earn (six), he needed a job (one) and he wanted to go (one). The reasons given for not wanting him to go included not wanting to be left alone (two), fear of a shortage of meat (two) and fear that the work might be dangerous (one).

The women were further asked "Would you like for (your husband) to go to work permanently at Strathcona Sound after the mine opens?" Again 11 women answered "yes, for sure" (nine) or "yes, maybe" (two). Two answered "no maybe", one answered "no, for sure" and one said that it was up to her husband. When asked why they would like him to go, six answered in terms of the money he would make, and seven said they would like him to work there if the family could live at the work site. One said her husband needs a job. Those not wanting him to go said because there would not be enough meat (one), and because they did not want to take their children away from their relatives (apparently anticipating that it would be possible for families to move to Strathcona Sound, one).

To the question "how long would you like him to work this winter?" half of the respondents answered "as long as possible" and one each said, for three months, for one month, and not work at all. Five of the women did not respond, suggesting a considerable amount of ambivalence.

Such ambivalence would of course be very natural, since on the one hand there are no work opportunities at home, and on the other hand work involves such a long period of separation.

Nevertheless, when asked "Which one would you like more, for your husband to work eight weeks in camp with one week at home and earn more money every work trip, or to work six weeks in camp with one week at home, and earn the same money per trip as now, or to work four weeks in camp with one week at home and earn less money every work trip than you do now, or to work two weeks in camp with one week at home and earn much less money than you do now?" 11 out of the 14 respondents chose either the longer eight week work period (three) or the current six week work period (eight). Two chose the 4 - 1 week work period and one chose the 2 - 1 week work period. Two did not answer, which again may reflect difficulty in making a difficult choice.

Two of the questions that were asked dealt with difficulties experienced as a result of the husband's absence. The first asked "Did you have any troubles while your husband was away?" Nine women said that they had, four said that they had not, and two did not respond. This is a much larger proportion of affirmative replies than were received from wives of the Arctic Bay SMS employees. Specific troubles mentioned included financial difficulties (which would probably not befall the Arctic Bay women - five),

troubles with the children (two) shortage of meat (two) and difficulties with other men (one). The second question inquired "Were you worried or unhappy when your husband was away at work?" Eleven women answered "yes", and five said "no". Again this is a very much larger proportion who said they worried (69 per cent) than was found among the Arctic Bay wives (32 per cent). Surprisingly, none of the women mentioned loneliness, when asked what worried or upset them. Eight said they were worried about the welfare of their husbands, two said they were worried about themselves or their children, two said they were upset by their children's not minding them, and one by difficulties with other men.

We wondered how such a long work period would affect the meat supply available to the workers' families, and so we asked "Did you have less meat from hunting to eat while your husband was working at Strathcona Sound because he could not go hunting so much?" Almost half of the women, seven, said that they did have less; eight said they did not, and one was not sure. This is slightly less than the proportion of Arctic Bay women who said they had less meat - 56 per cent. Both this and the Arctic Bay proportions are higher than the proportions we have encountered in the shorter work period samples reporting that they had less meat. We do not know from the above replies whether any, or how many, may have experienced a severe shortage. The answer would depend to a considerable extent on the degree of acculturation of dietary tastes in the individual family.

However it does seem very likely that with the men gone from home for such a long uninterrupted break, shortages of meat in some of their homes would have occurred. Unfortunately we do not have any supplemental information to shed additional light on this question. It seems likely that the meat shortage was worsened by the financial problems which we noted earlier.

All of the wives were asked "Are there any changes in the work program you would like to see to make it better for you?" Ten women made relevant suggestions as follows: move the family to the work site (five), a shorter rotation period or let the men come home whenever they want to (two), more frequent payment of wages (two) and stop the gambling at the work camp (one). These replies are reflective of the privations resulting from separation, and the financial difficulties that some of the wives were experiencing. The fact that about five times as high a proportion of the Igloolik as Arctic Bay wives made suggestions is again indicative of the fact that the very long period of separation which the former endured caused stresses and difficulties from which the Arctic Bay women were saved, because their husbands were able to return home for a day every weekend.

In an attempt to further probe the women's reactions to various work schedules we asked them "Has your husband ever before held a job where he worked at a camp, away from



home, eating and sleeping there while he was on the job?" If she answered "yes" we asked for details about the work rotation schedule and then asked "Do you like your husband's work rotation arrangements now, working at Strathcona Sound at the camp for six weeks and then at home for two weeks better than you liked the rotation arrangements on this earlier job?" We further asked her why she felt that way.

Only four of the women reported that their husbands had worked under other work rotational arrangements. Two of the husbands had worked for the DEW Line on schedules involving about three months away at work. The other two provided no further details. Both of the women whose husbands had worked for the DEW Line said they preferred the Strathcona Sound rotation arrangement, in both cases because they said their husbands could come home more frequently.

Summary. The responses of the wives which we have reviewed show that these women were generally quite favorable toward the Strathcona Sound employment opportunity because there are no other opportunities which are closer or which involve shorter work periods. Generally they accept the separation quite stoically: they do not complain about the loneliness it occasions, and when they worry it is usually about their husband's welfare, rather than about their own situations. However their interview schedules do

reflect some of the problems resulting from long work periods. One we have not seen before is the financial difficulties which families experienced during the long separation period, perhaps due in part to infrequent payment of wages. The other, which we have seen before is reduced availability, and perhaps shortage, of meat. However this was reported by a higher proportion of the Igloolik women than we have seen in any other but the Arctic Bay sample. As a result of these difficulties, a number of women said they hoped their families could move to the work site.

Many of the women in this sample seem torn by the conflicting wishes to have their husbands home more, and to have the income which his long work periods at Strathcona Sound earn. This is seen in some of the patterns of response, and at times in the incidence of non-response. However, the majority, when given a choice of several rotation schedule options, say they would prefer a work period as long or longer than that now in force, over having a shorter work period with attendant reduced income. Whether this is actually in the best interest of their families and of the community, or not, we cannot say.

#### Reactions of Igloolik Children to Their Father's Absences.

The interviewers completed interviews with only three children in Igloolik, apparently concentrating their efforts

on the more informative interviews with workers and their wives. This is of course too small a "sample" for one to have any confidence in the representativeness of the responses. Accordingly we note only the following. When asked whether they were happy or unhappy to have their fathers working at Strathcona Sound, one said he was happy, one said she was unhappy, and one said "both". However all said they wanted him to keep on working at the Sound because of the money he made, and all said they were proud to have him working there.

Unfortunately, no data on the effects of this 42 - 14 day rotation employment on the welfare of the children or on social disorganization within the community are available.

#### General Summary.

All of the data which we have on the reactions of the workers and their families, including the questionnaires from the three children, appear to reflect a stoic resolution to the conflict between the needs of these people for employment and income in an area where alternative sources are very rare, and the difficulties and privations of separation which the very long, six week work periods at the Strathcona mine site imposes. The result is that, as we have seen in the other samples, a majority of respondents say they would prefer a work period as long or longer than that currently in force, because of their needs for income, most frequently.

But on the other hand, the men say they miss their wives and children more, worry more about their wellbeing, and express more dissatisfaction with leisure time opportunities (despite the fact that the work camp is the best equipped of any of those included in this study, and the Arctic Bay men have no such complaints) than do any of the other samples for which we have data. All of these responses are reflective of separation stress. Similarly, their wives report more financial difficulties, more worry about their husband's welfare, and more experiencing of reduced meat supplies, than have any of the wives in any of the other samples for which we have data. As a result of these conditions, as well of course, as the fact that this is being discussed as a possibility, many expressed the wish that their families could be relocated to the work site, and the same wish was expressed by many of the men as well.



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## APPENDIX I

### On the Need for a Policy With Respect to Rotation Work Schedules in the N. W. T.

There appear to be strong, even compelling reasons why it is important for the Government of the Northwest Territories to move toward defining a policy regulating the conditions of rotation work schedules in the Northwest Territories at this time. There are two broad categories of reasons, those relating to the volume of this work, and those relating to the social advantages, and the social disadvantages of this type of employment arrangement.

In respect to the volume of this type of employment, there can be little doubt of an imminent increase in this kind of employment. In addition to the hydrocarbon explorative activity in the high arctic and in the Mackenzie Delta, there is the mine now nearing completion at Strathcona Sound, and there are the prospects of a Mackenzie Valley pipeline, of a Central Arctic Pipeline, and of the Baffinland Iron project at Mary River, to name but a few projects which have been explored in recent years. Some of these projects necessitate rotation work activity, since they are not amenable to planning for "company towns" or other permanent residential sites where workers and their families could be housed. In other cases

notably mining and refinery developments, it would be possible to provide adequately for a work force either through rotational arrangements or through providing housing for workers and their families at the work site. The question at that point becomes, which alternative is the more socially and economically advantageous. In any case, it seems apparent that the number of workers employed on rotation work schedules in the N. W. T. will be unusually high, as compared with the rest of Canada, and that the number of men so employed will continue to increase, at least in the near future.

This prospect automatically implies the need for government investigation and possibly regulation of this type of employment. The reason, we would argue, is that rotation schedule workers constitute a very small proportion of the labor force in all the Provinces, and accordingly that those, perhaps very many, who do not want to incur the disadvantages or the social costs of such employment have many and varied other employment opportunities available to them. However, in the Northwest Territories, and particularly for native people, it is a different story. In some communities - Coppermine, Fort McPherson and Pond Inlet would be a few among many examples - all of the employment opportunities in the community with the exception of the few in the Public section, would involve rotational employment. Thus for most of the men in the

community to take such employment does not reflect a preference for such employment, but only a preference for employment instead of unemployment. The lack of realistic alternatives in this forced choice situation clearly suggests the need for government regulation of it in the best interest of the workers themselves, their families and their communities.

There are clear reasons for anticipating both advantages and disadvantages in this employment, as compared with employment resulting in relocation of workers together with their families in proximity to the work site. Stevenson, in his study of Problems of Eskimo Relocation for Industrial Employment (1968) describes the "syndromes of maladjustment in relocation employment" (in Northern Alberta) which he commonly encountered, including too much drinking, job absenteeism, general apathy, persistent anti-social behavior, frequent arrests for law violation, and the return of disgruntled Eskimo families to their home settlements (pl)

Especially pathetic were the cases of two Inuit wives resettled in Northern Alberta, who soon became progressively more and more deeply involved in alcoholism, to the point of neglecting housekeeping, and caring for their children, completely. Stevenson is quite fluent in Inuktitut, but all that he could get out of them was the despairing statement of one woman, "There is no place for me in this land." (pp 7 - 8)

He notes the important influence of kinship ties in making it difficult for Inuit families to adapt successfully

to relocation in the southern part of the Northwest Territories, or yet farther south. (p. 24). The non-availability of adequate housing which he encountered in the communities of relocation he studied were seen as a further reason for preferring rotational employment to employment involving relocation (p. 24).

Some of the material in Williamson's book dealing with the experience of Inuit working in the nickel mine at Rankin Inlet, entitled *Eskimos Underground*, (1974) is relevant here as well, particularly to the difficulties experienced by workers who are very unacculturated when they live or are relocated to communities adjacent to the work site. In the case of the people of whom Williamson writes, many of them were very minimally acculturated and impacted "Cariboo Eskimo" from the central Keewatin who were relocated to the coast following a series of starvations during the middle 1950's. Others were people from coastal areas around Hudson's Bay who were attracted by the wage earning opportunities. None of them had had prior experience with the wide and attractive range of goods found in the lavishly stocked store which the Hudson's Bay Company opened in Rankin Inlet to cater to the mine employees. Williamson gives a pitiful account of the difficulties which were initially experienced by the Inuit workers who often reported to work ill-nourished - because they did not know how to put together well-balanced meals from the range of



"junk foods" attractively displayed in the store - and unrested, because their small shacks or houses were overcrowded, and the people wandering in and out of the house had no appreciation of the needs these men had for undisturbed rest. By contrast the white workers living in the company-run bunkhouse were well fed and well rested. The conclusion is inescapable that the men, and probably their families as well, would have been better off, if they could have been employed, at least during an initial transition period, on a rotation basis, living in the bunkhouse during the work week, and returning to their homes on the weekend.

There are of course possible negative consequences of rotational employment as well. These include the possible ill consequences of stripping the settlement of its most active hunters, with serious negative effects for the elderly residents of the settlement with whom country meat is invariably shared, the risk of meat shortage among the wives and children of the absent workers, the stripping of the community of those with the best leadership potential, and of those needed to perform the necessary everyday work of the community, or to respond to some sort of crisis experience, fire for example. It is apparent that the first and last of these ill consequences would be more severe if work relocation were substituted for work rotation, and workers and their families relocated away from the settlement semi-permanently, instead of merely leaving

for the duration of a work rotation period.

Further evidence of this type of difficulty is mentioned by Scott (1975). In 1967, men were relocated from Stony Rapids to work at the Eldorado mine at Uranium City in Saskatchewan. The attempt was a failure: most of the men returned to Stony Rapids within the first month and only one or two lasted beyond the second month. According to a Northern Municipal Councillor, social adjustment problems were the major factor contributing to this total failure. Eight years later, the Eldorado mine was still finding it impossible to keep most native employees more than a month or two, because of difficulties in relocation as well as some problems between native and non-native workers. The difficulties of relocation have proved to be so intractable that Eldorado has now taken the position in discussions with representatives of small settlements on which it might draw for manpower, that it cannot be responsible for personal and family problems arising from social adjustment difficulties experienced following relocation to Uranium City.

A detailed discussion of the disadvantages of work rotation for the men, their families and their communities is found in this report. The purpose of this discussion has merely been to point out that given the current level of acculturation and sophistication among many native people in the Northwest Territories, and given that attractive, well-paying employment is often not to be

found in most of the small home settlements in which many northern natives live, but frequently is to be found elsewhere, arranging for access to this employment by means of work rotation is frequently preferable to relocating the worker and his family in proximity to the work site.







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